To: Ryan Eberle[Ryan.eberle@gric.nsn.us]; kale.walch@pinalcountyaz.gov[kale.walch@pinalcountyaz.gov]; 'Todd Martin - AQDX'[TMartin@mail.maricopa.gov]; 'Scott Treece - AQDX'[TreeceS@mail.maricopa.gov]; 'Richard Sumner - AQDX'[SumnerR@mail.maricopa.gov]; 'Balaji Vaidyanathan'[Vaidyanathan.Balaji@azdeq.gov]; 'Naveen D. Savarirayan'[Savarirayan.Naveen@azdeq.gov]; 'Scott Porter'[Scott.Porter@pima.gov]; Rupesh Patel[Rupesh.Patel@pima.gov]; 'tbbegay@navajo-nsn.gov'[tbbegay@navajo-nsn.gov]; 'rbisht@navajo-nsn.gov'[rbisht@navajo-nsn.gov]; 'Anu Jain'[Anu.Jain@pinalcountyaz.gov]; Chen, Eugene[Chen.Eugene@epa.gov]; TSAI, YA-TING[Tsai.Ya-Ting@epa.gov]; Rios, Gerardo[Rios.Gerardo@epa.gov]
From: BECKHAM, LISA
Sent: Thur 3/1/2018 12:53:26 AM
Subject: RE: AZ Permit Managers Meeting
Rulemaking Updates February 2018.pdf
02_26_2018_CARB_CoreyLtr.pdf

Hi everyone,

Here's the EPA regulatory update and a letter we recently sent to California regarding landfills.

Lisa Beckham

Environmental Engineer

Air Permits Office

EPA Region 9

(415) 972-3811

-----Original Appointment-----
From: Ryan Eberle
Sent: Tuesday, January 30, 2018 6:31 AM
To: Ryan Eberle; BECKHAM, LISA; kale.walch@pinalcountyaz.gov; 'Todd Martin - AQDX'; 'Scott Treece - AQDX'; 'Richard Sumner - AQDX'; 'Balaji Vaidyanathan'; 'Naveen D. Savarirayan'; 'Scott Porter'; Rupesh Patel; 'tbbegay@navajo-nsn.gov'; 'rbisht@navajo-nsn.gov'; 'Anu Jain'; Chen, Eugene; TSAI, YA-TING; Rios, Gerardo
Subject: FW: AZ Permit Managers Meeting
When: Thursday, March 01, 2018 9:00 AM-12:00 PM (UTC-07:00) Arizona.
Where: Lone Butte Development Corporation, 1235 S. Akimel Lane, Chandler, AZ

-----Original Appointment-----
From: Ryan Eberle [mailto:Ryan.Eberle@gric.nsn.us]
Sent: Thursday, January 04, 2018 3:43 PM
To: Ryan Eberle; kale.walch@pinalcountyaz.gov; 'Todd Martin - AQDX'; 'Scott Treece - AQDX'; 'Richard Sumner - AQDX'; 'Balaji Vaidyanathan'; 'Naveen D. Savarirayan'; 'Scott Porter'; Rupesh Patel; 'tbbegay@navajo-nsn.gov'; 'rbisht@navajo-nsn.gov'; 'Anu Jain'; Chen, Eugene; TSAI, YA-TING; Rios, Gerardo
Subject: AZ Permit Managers Meeting
When: Thursday, March 01, 2018 9:00 AM-12:00 PM (UTC-07:00) Arizona.
Where: Lone Butte Development Corporation, 1235 S. Akimel Lane, Chandler, AZ

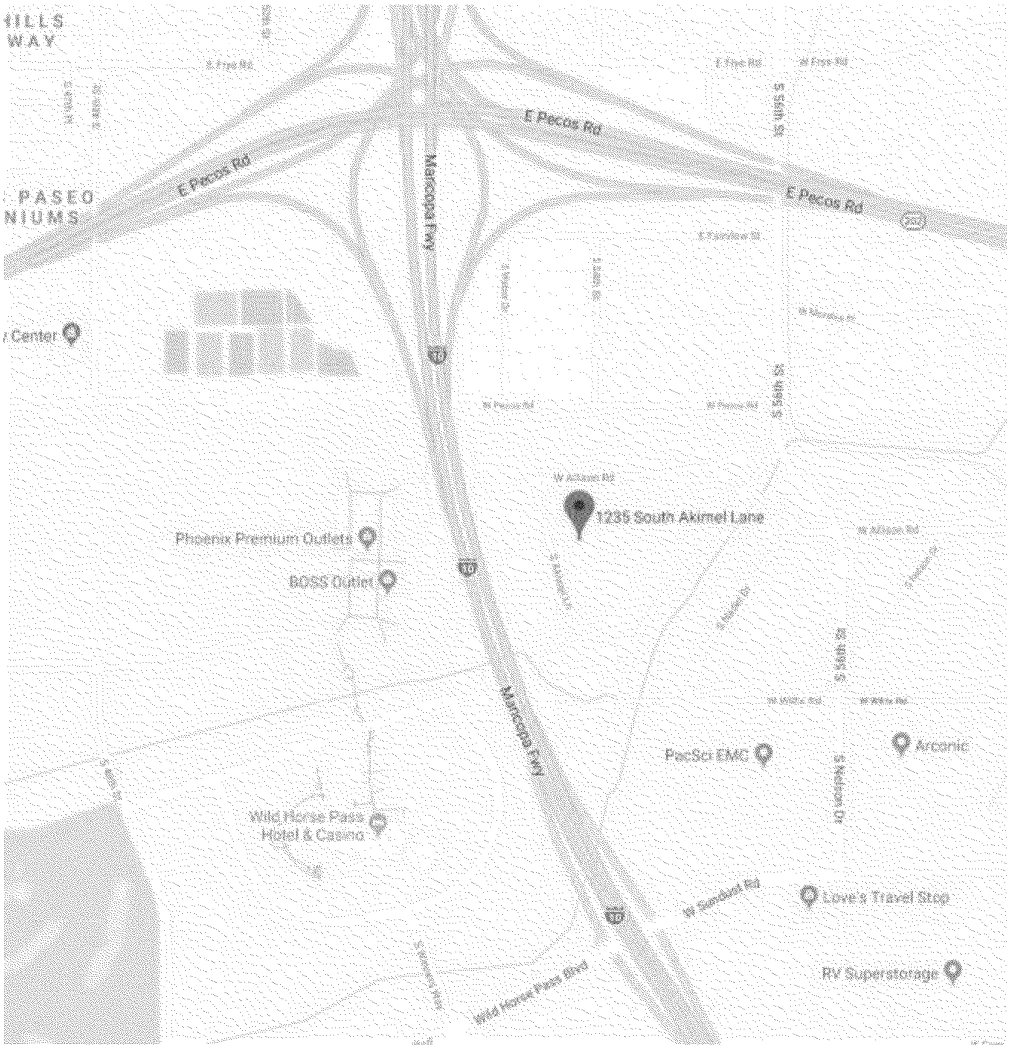
When: Thursday, March 01, 2018 9:00 AM-12:00 PM (UTC-07:00) Arizona.

Where: Lone Butte Development Corporation, 1235 S. Akimel Lane, Chandler, AZ

Note: The GMT offset above does not reflect daylight saving time adjustments.

+~+~+~+~+~+~+~+~+~+

Agenda to follow.



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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

FEB 26 2018

Mr. Richard W. Corey
Executive Officer
California Air Resources Board
1001 I Street
P.O. Box 2815
Sacramento, California 95812

Dear Mr. Corey:

I am writing in response to your December 4, 2017 letter concerning the Landfill Emission Guidelines (EG) recently promulgated by the Environmental Protection Agency (EPA) and located at 40 CFR Part 60, Subpart Cf. We have received the California Air Resources Board's (CARB) May 30, 2017 state plan to implement the EG. As you may know, in May 2017 the EPA announced it is reconsidering several issues in the 2016 final rules for Municipal Solid Waste Landfills New Source Performance Standards (NSPS) and EG. On May 31, 2017, the EPA issued a 90-day stay on the 2016 EG. The 90-stay expired on August 29, 2017; thus, the 2016 rules are currently in effect. The EPA still intends to complete the reconsideration process granted by the Administrator.

Since the Agency is reconsidering various issues regarding the landfill regulations, at this time we do not plan to prioritize the review of submitted state plans nor are we working to issue a Federal Plan for states that failed to submit a state plan. Please also note that under 40 CFR § 60.27(c), the requirement for the EPA to develop a Federal Plan has not been triggered for the State of California since CARB has submitted a timely plan. Additionally, we are currently working to align our reconsideration of certain portions of the EG with the risk and technology review (RTR) for this source category. The EPA has a court order to complete the RTR by March 13, 2020 and the reconsideration will be finished on the same timeline.

Thank you for your letter and I hope this message allays your concerns about a Federal Plan. If you have any questions about this letter, please call me at (415) 972-3851 or Amy Zimpfer at (415) 947-4146 or have your staff contact Jeffrey Buss at (415) 947-4152 or Lisa Beckham at (415) 972-3811.

Sincerely,

Matthew J. Lakin
Acting Director, Air Division

cc: Shannon Martin Dilley, Counsel
CARB Legal Office

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To: BECKHAM, LISA[BECKHAM.LISA@EPA.GOV]
Cc: Matthew Ivers[Ivers.Matthew@azdeq.gov]; Mike Sonenberg[Sonenberg.Mike@azdeq.gov]; Natalie Muilenberg[Muilenberg.Natalie@azdeq.gov]
From: Ryan C. Templeton
Sent: Thur 3/16/2017 9:05:11 PM
Subject: RE: Arizona Municipal Solid Waste 111(d) Plan timeline
State Plan for Implementing the Municipal Solid Waste Landfill Emission Guidelines for Arizona.docx

Hey Lisa,

I think I have gotten to a good spot in the development of ADEQ's draft Municipal Solid Waste Landfill 111(d) plan, so I thought I would go ahead and send it along. There is some information currently missing from the plan that I will need to add in later. Currently, I am aware that I am missing information regarding the rule, the rule making process, and the public process. If there is anything else missing from the plan or any changes you feel should be made, please feel free to let me know. I would greatly appreciate any feedback by 4/4/2017. Thanks for your willingness to review the plan.

I also wanted to touch base and see if you had any luck identifying the procedures for States to request an extension for plan submittal.

Ryan Templeton

Environmental Engineer Specialist

Air Quality Improvement Planning Section

Air Quality Division, Arizona Department of Environmental Quality

1110 W. Washington Street

Phoenix, AZ 85007

(602) 771-4230

rct@azdeq.gov

From: BECKHAM, LISA [mailto:BECKHAM.LISA@EPA.GOV]
Sent: Friday, March 10, 2017 9:43 AM
To: Ryan C. Templeton <Templeton.Ryan@azdeq.gov>
Subject: RE: Arizona Municipal Solid Waste 111(d) Plan timeline

Hi Ryan,

This looks good to me. I'm still working to track down the process for the extension. But, I hope to have an answer by next Wednesday.

Thanks!

Lisa

From: Ryan C. Templeton [mailto:Templeton.Ryan@azdeq.gov]
Sent: Thursday, March 09, 2017 11:08 AM
To: BECKHAM, LISA <BECKHAM.LISA@EPA.GOV>
Subject: Arizona Municipal Solid Waste 111(d) Plan timeline

Hey Lisa,

On our last call you asked that I give you some notice before I sent over a draft of ADEQ's MSW landfill 111(d) plan, so you could plan your workload accordingly. Please let me know if you have any issues/feedback with the schedule proposed below. Also, until we figure out the procedures for requesting a submittal date extension, I am still working towards submitting a plan with proposed rules by the 5/30/2017 deadline. The following dates take that approach into account.

3/21/2017 – I will provide you with a draft copy of the plan to review by this date

4/4/2017 – Proposed date for your feedback on draft 111(d) plan

4/11/2017 – ADEQ public process begins for plan and proposed rule

5/12/2017 – Public Hearing and end of public process

5/30/2017 – Submission of 111(d) plan with proposed rules

If the proposed dates don't work with your schedule, please let me know and I will try to adjust as necessary. Thanks for all your help.

Ryan Templeton

Environmental Engineer Specialist

Air Quality Improvement Planning Section

Air Quality Division, Arizona Department of Environmental Quality

1110 W. Washington Street

Phoenix, AZ 85007

(602) 771-4230

rct@azdeq.gov

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To: BECKHAM, LISA[BECKHAM.LISA@EPA.GOV]
From: Arizona Department of Environmental Quality
Sent: Wed 3/8/2017 9:44:33 PM
Subject: Air Quality Division | For Stakeholder Review | State Rule Revisions for Municipal Solid Waste Landfills

Dear Interested Party,

The Arizona Department of Environmental Quality (ADEQ) welcomes your review and input on state rule revisions that incorporate new federal standards for municipal solid waste landfills. These state rule revisions are required to conform to the following federal standards promulgated by the Environmental Protection Agency:

- 40 CFR Part 60, Subpart Cf, "Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills"
- 40 CFR Part 60, Subpart XXX, "Standards of Performance for Municipal Solid Waste Landfills that Commenced Construction, Reconstruction, or Modification After July 17, 2014"

ADEQ is proposing to amend the following state rules accordingly:

- A.A.C. R18-2-731, "Standards of Performance for Existing Municipal Solid Waste Landfills"
- A.A.C. R18-2-901, "Standards of Performance for New Stationary Sources"

View the current state rules in A.A.C. Title 18, Chapter 2 >

ADEQ's draft proposed amendments are attached below.

- 2017-03-08_NPRM_MSW_Landfill_DRAFT.docx

Please provide your comments by **Wednesday, March 15, 2017** to:

Natalie Muilenberg
Planning Unit, Air Quality Improvement Planning Section
Arizona Department of Environmental Quality
nm3@azdeq.gov

QUESTIONS?

Natalie Muilenberg

602-771-1089
nm3@azdeq.gov

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This email was sent to beckham.lisa@epa.gov using GovDelivery, on behalf of: Arizona Department of Environmental Quality (ADEQ) · 1110 West Washington Street · Phoenix, AZ 85007 · 1-602-771-2300

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From: BECKHAM, LISA [mailto:BECKHAM.LISA@EPA.GOV]
Sent: Thursday, February 16, 2017 2:34 PM
To: Johanna Kuspert - AQDX <JKuspert@mail.maricopa.gov>
Cc: Natalie Muilenberg <Muilenberg.Natalie@azdeq.gov>; Ryan C. Templeton <Templeton.Ryan@azdeq.gov>; Matthew Ivers <Ivers.Matthew@azdeq.gov>; Hether Krause - AQDX <HetherKrause@mail.maricopa.gov>
Subject: RE: Maricopa County Section 111(d) Plan: Follow-Up

Hi Johanna,

Yes, I confirm the information below. However, I will caveat that we don't need 2 paper copies. Something like a cover letter with the plan on a CD would be fine – and preferred in order to save paper. And actually if you submit the plan on CD, then you wouldn't need to email me a copy. (By no electronic method, we mean there isn't a web-based interface where you upload documents and enter information electronically.)

Lisa Beckham

Environmental Engineer

Air Permits Office

EPA Region 9

(415) 972-3811

From: Johanna Kuspert - AQDX [mailto:JKuspert@mail.maricopa.gov]
Sent: Thursday, February 16, 2017 6:15 AM

To: BECKHAM, LISA <BECKHAM.LISA@EPA.GOV>
Cc: Natalie Muilenberg <Muilenberg.Natalie@azdeq.gov>; Ryan C. Templeton <Templeton.Ryan@azdeq.gov>; Matthew Ivers <Ivers.Matthew@azdeq.gov>; Hether Krause - AQDX <HetherKrause@mail.maricopa.gov>
Subject: Maricopa County Section 111(d) Plan: Follow-Up

Lisa:

Just to confirm:

• The MCAQD can submit the Section 111(d) plan for municipal solid waste landfills directly to the EPA.

• The MCAQD should mail two (2) paper copies of the Section 111(d) plan for municipal solid waste landfills to Elizabeth Adams, Air Division Director, U.S. Environmental Protection Agency, 75 Hawthorne Street, San Francisco, CA 94105. And, as you requested, the MCAQD should e-mail the Section 111(d) plan for municipal solid waste landfills to you as well.

• Per 40 CFR Part 60, Section 60.23 plans are to be submitted to the Administrator according to 40 CFR Part 60, Section 60.4, which says in (a): "All requests, reports, applications, submittals, and other communications to the Administrator pursuant to this part shall be submitted in duplicate to the appropriate Regional Office of the U.S. Environmental Protection Agency to the attention of the Director of the Division indicated in the following list of EPA Regional Office…"

• The MCAQD should include "responses" to 40 CFR Part 60, Subpart B, Sections 60.23, 60.24. 60.25, and 60.26 in the Section 111(d) plan for municipal solid waste landfills; these sections can be used as a "checklist". There currently is <u>not</u> an electronic submittal system in place.

• As far as the Congressional Review Act (CRA) actions, you don't have any information beyond what is in the news. You haven't heard that these rules are being targeted – just that they are within the potential reach of the CRA.

Just so you know, I've cc.ed three people from the Arizona Department of Environmental Quality (ADEQ); they are working-on their Section 111(d) plan for municipal solid waste landfills and this information could be useful to them, as well.

Thanks.

Johanna M. Kuspert • **Rules Unit Supervisor**

Maricopa County Air Quality Department

1001 N. Central Avenue, #125 | Phoenix, AZ 85004

Located at the Central Ave. & Roosevelt METRO stop

Desk: 602.506.6710
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DRAFT-For Review And Discussion-DRAFT
March 10, 2017

Maricopa County

PLAN FOR IMPLEMENTING

THE MUNICIPAL SOLID WASTE LANDFILLS

EMISSION GUIDELINES AND

COMPLIANCE TIMES

In Accordance with Section 111(d) of the Clean Air Act

and

40 CFR Part 60, Subpart B

Prepared for Submittal to the EPA by

Maricopa County Planning and Analysis Division

Maricopa County Air Quality Department

ED_001764_00001803

DRAFT-For Review And Discussion-DRAFT
March 10, 2017

INTRODUCTION

On August 29, 2016, the U.S. Environmental Protection Agency (EPA) promulgated emission guidelines for municipal solid waste (MSW) landfills under the Clean Air Act (CAA), Section 111 (Standards of Performance for New Stationary Sources).[1] The emission guidelines set forth specific mechanisms and requirements for controlling emissions of methane (with emission of non-methane organic compounds (NMOCs) used as a proxy to aid in such control). The emission guidelines are codified at Title 40 (Protection of Environment) of the Code of Federal Regulations (CFR), Part 60 (Standards of Performance for New Stationary Sources), Subpart Cf (Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills).[2]

CAA Section 111(d) and 40 CFR Part 60, Subpart Cf, Section 60.30(f)(b) require a State to submit to the EPA a plan to implement the emission guidelines and compliance times for MSW landfills. State plans submitted to the EPA must include elements described in the EPA regulations, including 40 CFR Part 60, Subparts B (Adoption and Submittal of State Plans for Designated Facilities)[3] and Cf, as well as the elements listed in the EPA guidance document, *Municipal Solid Waste Landfills, Volume 2 (guidance document).*[4] The *guidance document* originally focused on the State plan development and approval process for 40 CFR Part 60, Subpart C (Emission Guidelines for Existing Municipal Solid Waste Landfills).[5] These same submittal requirements for 40 CFR Part 60, Subpart Cc have been used as the basis for preparing this plan (referred to as the Section 111(d) Plan) to comply with the new emission guidelines as promulgated at 40 CFR 60, Subpart Cf.

The EPA requires any State plan required by the CAA Section 111(d) to contain specific elements. The EPA *guidance document* provided guidance to merge the specific requirements of 40 CFR Part 60, Subpart Cc and the general requirements of the CAA Section 111(d) elements into a State plan for MSW landfills. Using the information provided in these two documents, the MCAQD identified the following requirements to be included in the Section 111(d) Plan:

1) Identification of enforceable state mechanisms selected by the State for implementing the EPA emission guidelines;

2) A demonstration of the State's legal authority to carry out the Section 111(d) State plan as submitted;

3) An inventory of existing MSW landfills the State that are affected by the 40 CFR 60, Subpart Cf emission guidelines. An existing MSW landfill may be active (currently accepting waste or having additional capacity available to accept waste) or closed (no longer accepting waste and permanently inactive);

4) An inventory of emissions from existing MSW landfills in the state that are affected by the emission guidelines;

5) Emission standards for existing MSW landfills that are no less stringent than those in the emission guidelines;

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6) The State process, as stipulated in 40 CFR Part 60, Subpart Cf, for review and approval of site-specific gas collection and control system design plans;

7) Compliance schedules, extending no later than 30 months after the date the annual non-methane organic compound emission rate reaches or exceeds 34 megagrams (Mg) per year;

8) Testing, monitoring, recordkeeping, and reporting requirements;

9) A record of public hearing(s) on the State plan; and

10) A provision for annual MCAQD progress reports to EPA on implementation of the State plan.

The remainder of this Section 111(d) Plan will describe how this Section 111(d) Plan meets each of the above requirements.
For the purposes of this Section 111(d) Plan, the Maricopa County Air Quality Department (MCAQD) is considered a "State". In 40 CFR Part 60, Subpart A (General Provision), Section 60.2 (Definitions), "State" means all non-Federal authorities, including local agencies, interstate associations, and State-wide programs, that have delegated authority to implement: (1) The provisions of this part; and/or (2) the permit program established under part 70 of this chapter. The term State shall have its conventional meaning where clear from the context. "And/or" means that the term "state" includes local agencies that have authority to implement either or both of the programs mentioned. The MCAQD has the authority to implement both. In clause (1), "this part" refers to the Part 60. The MCAQD has delegation to administer the provisions of Part 60 and therefore qualifies under this clause. Part 70 consists of the requirements for state Title V programs. The MCAQD also has delegated authority (or more accurately an approved program) under Title V and Part 70, and therefore qualifies under this clause as well.

Also on August 29, 2016, the EPA promulgated, under Section 111(b) of the Clean Air Act,[7] a New Source Performance Standard (NSPS) for new, modified, or reconstructed MSW landfills. The NSPS is codified at 40 CFR Part 60, Subpart XXX (Standards of Performance for Municipal Solid Waste Landfills That Commenced Construction, Reconstruction, or Modification After July 17, 2014). This Section 111(d) Plan does not address the NSPS. The MCAQD will address the NSPS in a separate request to the EPA; the request will be to update delegation of local authority to implement such standards. That request will encompass updating of the MCAQDs delegated authority from the EPA to administer NSPS adopted by the EPA since July 1, 2016, including the NSPS for new, modified, and reconstructed MSW landfills at 40 CFR Part 60, Subpart XXX.[8] This NSPS will be incorporated by reference at Maricopa County Air Pollution Control Regulations, Regulation III-Control of Air Contaminants, Rule 360, *New Source Performance Standards*.[9]

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Citations

[1] 42 U.S.C. § 7411(d)

[2] Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills. 81 Fed. Reg. 59276 (August 29, 2016) (to be codified at 40 CFR 60, Subpart Cf).

[3] Adoption and Submittal of State Plans for Designated Facilities as codified in the Code of Federal Regulations at 40 CF 60, Subpart B. 40 FR 53346, November 17, 1975.

[4] Municipal Solid Waste Landfills, Volume 2: Summary of Requirements for Section 111(d) State Plans for Implementing the Municipal Solid Waste Landfill Emission Guidelines. United States Environmental Protection Agency, Office of Air Quality, EPA-456R/98-009, November 1998. Accessed February 13, 2017, at https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=2000F3BG.pdf

[5] Emission Guidelines for Existing Municipal Solid Waste Landfills as codified in the Code of Federal Regulations at Title 40, Part 60, Subpart Cc. 61 Fed. Reg. 9919 (March 12, 1996).

[6] Arizona Revised Statues, Title 49-The Environment, Chapter 3 Air Quality, Article 3 County Air Pollution Control, Section 49-479 Rules; hearing. (Accessed at http://www.azleg.gov/viewdocument/?docName=http://www.azleg.gov/ars/49/00479.htm January 6, 2017).

[7] 42 U.S.C. § 7411(b)

[8] The New Source Performance Standard for Municipal Solid Waste Landfills to be codified in the Code of Federal Regulations at Title 40, Part 60, Subpart XXX. (81 Fed. Reg. 59332, August 29, 2016).

[9] Maricopa County Air Pollution Control Regulations, Regulation III-Control of Air Contaminants, Rule 360, *New Source Performance Standards*. As revised and adopted by the Maricopa County Board of Supervisors on November 2, 2016.

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I Identification of enforceable MCAQD mechanisms selected by the MCAQD for implementing the EPA emission guidelines.

The MCAQD originally drafted and adopted Maricopa County Air Pollution Control Regulations, Regulation III-Control of Air Contaminants, Rule 321 *Municipal Solid Waste Landfills* on May 14, 1997, in response to the issuance of the Standards of Performance for New Stationary Sources and Guidelines for Control of Existing Sources: Municipal Solid Waste Landfills (40 CFR Part 60, Subpart Cc, 61 Fed. Reg. 9905, March 12, 1996). The MCAQD is proposing to implement the new emission guidelines, 40 CFR Part 60, Subpart Cf for MSW landfills, with appropriate revisions into a legally enforceable revised Rule 321 *Municipal Solid Waste Landfills*.

II A demonstration of the MCAQD's legal authority to carry out the Section 111(d) State plan as submitted.

The MCAQD is proposing to implement the new emission guidelines, 40 CFR Part 60, Subpart Cf, for MSW landfills with appropriate revisions into a legally enforceable revised Rule 321 *Municipal Solid Waste Landfills*.

Arizona Revised Statutes (A.R.S.) §§ 49-112, 49-474, 49-471.09, 49-479, 49-480 authorize MCAQD to issue and administer rules. A.R.S. §§ 49-112, 49-471.04, 49-474, 49-479, and 49-480 establish the procedure for rule adoption of a County regulation. The MCAQD will comply with the rule adoption process for the adoption of revised Rule 321 *Municipal Solid Waste Landfills*.

III An inventory of existing municipal solid waste landfills within the jurisdiction of the MCAQD that are affected by the 40 CFR Part 60, Subpart Cf emission guidelines. An existing landfill may be active (currently accepting waste or having additional capacity available to accept waste) or closed (no longer accepting waste and permanently inactive).

There are a total of fifteen (15) landfills located within Maricopa County. Of those, eleven (11) are MSW landfills that fall within the jurisdiction of the MCAQD; one (1) is an inert landfill; and three (3) MSW landfills are operated by the Salt River Pima-Maricopa and Fort McDowell Indian Communities and fall under the jurisdiction of the U.S. Bureau of Indian Affairs. The existing eleven (11) MSW landfills within the jurisdiction of the MCAQD are:

State Route 85
Southwest Regional
Butterfield Station
Northwest Regional
Glendale
Skunk Creek
27th Avenue
Queen Creek

Chandler (McQueen)
Cave Creek
19th Avenue

Table 1 below summarizes the MSW landfill facilities and status of each facility that is located within Maricopa County.

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DRAFT-For Review And Discussion-DRAFT
March 10, 2017

Table 1: Municipal Solid Waste Landfills Within Maricopa County

List of Active and Inactive MSWLF Subject to NSPS and/or Rule 321

Landfill	waste-in-place (tons)	waste-in-place (Mg)	opened	closed*	active GCCS?	subject to Rule 321?	subject to WWW?	PN	years active	avg annual waste deposit (tpy)	avg annual waste deposit (Mg/yr)
1 State Route 85	9,093,108	8,249,128	2006	-	Yes	No	Yes	V03002	10	826,646	749,921
2 Southwest Regional	9,500,000	8,618,255	1997	-	Yes	No	Yes	V97023	19	475,000	430,913
3 Butterfield Station	30,900,000	28,032,007	1990	-	Yes	Yes	No	V98003	26	1,144,444	1,038,222
4 Northwest Regional	16,600,000	15,059,266	1983	-	Yes	Yes	No	V97016	33	488,235	442,920
5 Glendale	17,800,000	16,147,888	1973	-	Yes	Yes	No	V97015	43	404,545	366,997
6 Skunk Creek	16,122,000	14,625,632	1972	2005	Yes	Yes	No	V97019	33	474,176	430,166
7 27th Avenue	10,800,000	9,797,595	1978	1995	Yes	Yes	No	150058	17	600,000	544,311
8 Queen Creek	4,120,664	3,738,203	1972	2007	No	No	No	GP			
9 Chandler (McQueen)	1,244,301	1,128,811	1976	2005	Yes	No	No	020159			
10 Cave Creek	?	#VALUE!	?	?	Yes	No	No	980398			
11 19th Avenue	?	#VALUE!	1957	1979	Yes	No	No	010048			
12 Lone Cactus	?	#VALUE!	?	?	No	No	No	990066			
13 North Center Street											
14 Salt River											
15 Tri Cities											

** 2017 is used as the inventory year for each instance in LandGEM*

1-7 modeled with LandGEM using CAA defaults. These represent sources in Maricopa County which are potentially affected by a revision to the State plan.

8 Queen Creek - tier monitoring never triggered GCCS requirement, not Subject the Rule 321 or NSPS.

9 Chandler (McQueen) - closed before achieving 2.5 Mg waste-in-place, not Subject the Rule 321 or NSPS.

10 Cave Creek - closed before achieving 2.5 Mg waste-in-place (TSD), not Subject the Rule 321 or NSPS.

11 19th Avenue - received no waste since 1987, not Subject the Rule 321 or NSPS but may be affected by revisions to State plan under a LAER determination for this source.

12 Lone Cactus - Not a MSW landfill, this is permitted as an inert landfill.

13-15 Operated by the Salt River Pima-Maricopa and Fort McDowell Indian Communities and fall under the jurisdiction of the U.S. Bureau of Indian Affairs.

IV An inventory of potential non-methane organic compounds (NMOC) emissions from existing MSW landfills within the jurisdiction of the MCAQD that are likely to be affected by the emission guidelines was prepared using the EPA LandGEM model. LandGEM is based on a first-order decomposition rate equation for quantifying emissions from the decomposition of landfilled waste in MSW landfills.

The EPA regulations require a State plan to provide an emissions inventory of the MSW landfills that include an estimate of the NMOC emissions.

There are seven (7) existing MSW landfills within the jurisdiction of the MCAQD that may be affected by the 40 CFR 60, Subpart Cf emission guidelines. To "correlate" the inventory with applicable emission standards, the inventory compares the estimated emissions with the old emission standard codified under 40 CFR Part 60, Subpart Cc and with the recently revised emission standard-to be codified at 40 CFR 60, Subpart Cf .

Table 2 below represents total estimated land fill gas ("LFG") produced in inventory year 2017 based on user entered data (these data include specific waste acceptance each year as well as standard parameters). For the inventory year 2017, the estimated emissions of these seven (7) MSW landfills yields a combined 7,703 tons of NMOC per year.

Table 2: LandGEM Emissions Summary
For MSW Landfills Within The Jurisdiction Of The MCAQD

LandGEM Summary for all MSW Landfills Subject to NSPS and/or Rule 321 Using Default (CAA) Parameters

MODEL PARAMETERS (ARID)*

Enter year of emissions inventory:	2017
Methane Generation Rate, k:	0.02 1/year
Potential Methane Generation Capacity,	170 m³/Mg
NMOC Concentration:	4,000 ppmv as hexane
Methane Content:	50 % by volume

Gas / Pollutant (tpy)	State Route 85	Southwest Regional	Butterfield Station	Northwest Regional	Glendale	Skunk Creek	27th Avenue	Totals
Total landfill gas (LFG)	69,240	66,420	202,500	102,200	100,400	79,630	50,550	670,940
Methane	18,490	17,740	54,100	27,290	26,820	21,270	13,500	179,210
Carbon dioxide	50,740	48,680	148,400	74,880	73,590	58,360	37,050	491,700
Non-methanic organic compounds (NMOC)	795	763	2,325	1,173	1,153	914	580	7,703

** An "arid region" is defined as a region receiving less than 25 inches average annual rainfall.*

These seven (7) MSW landfills are considered non-co-disposal, meaning no hazardous wastes are accepted and the provisions of 40 CFR Parts 260 through 282 (RCRA) are not applicable. Therefore, EPA guidance suggests that 39 percent of total NMOC may be considered a valid estimate of total volatile organic compounds (VOCs) of LFG, for potential to emit (PTE) purposes. Also, each of these MSW landfills has a gas collection and control system ("GCCS") in place and operating according to the provisions of the NSPS and/or Rule 321. Therefore, the majority of these organic emissions are combusted or otherwise controlled to approximately a 98 percent (98%) efficiency rate. The EPA suggests a properly installed GCCS will achieve rightly 75 percent capture, with 25 percent considered fugitive, as these emissions defy capture methods.

Therefore, stack VOC emissions for each MSW landfill may be estimated using LandGEM by assuming 39 percent of all NMOC are VOC; 75 percent of all VOC generated are collected by the GCCS; and 98 percent of which are oxidized by controls. Table 3 below summarizes the VOC emissions for each MSW landfill that falls within the jurisdiction of the MCAQD.

Table 3: VOC Emissions Summary
For MSW Landfills Within The Jurisdiction Of The MCAQD

VOC Estimates for all MSW Landfills Subject to NSPS and/or Rule 321 (includes controls)

Percent of NMOC that are VOC: 39%
Percent of VOC collected by GCCS: 75%
Percent of VOC oxidized by controls: 98%

Gas / Pollutant (tpy)	State Route 85	Southwest Regional	Butterfield Station	Northwest Regional	Glendale	Skunk Creek	27th Avenue	Totals
Volatile organic compounds (VOC)	5	4	14	7	7	5	3	45

V Emission standards for existing municipal solid waste landfills that are no less stringent than those in the emission guidelines.

The EPA regulations require a state plan to implement emission standards for existing MSW landfills. The State emission standards must (with certain limited exceptions) be as stringent as those required in the EPA emission guidelines. These guidelines set specific requirements regarding the type of standards that a State must adopt, including: allowable emission rates; emission levels at which a gas collection and control system must be installed; the characteristics and performance of the gas collection and control system; methods to be used in determining whether a gas collection and control system complies with performance requirements.

Maricopa County Air Pollution Control Regulation, Regulation III, Control of Air Contaminants, Rule 321: Municipal Solid Waste Landfills was originally adopted by the Board on May 14, 1997. Rule 321 implemented the EPA's new source performance standards (NSPS) for the Federal Emission Guidelines for 40 CFR 60, Subpart Cc-Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills. (61 Fed. Reg. 9919, Mar. 12, 1996). Rule 321, Section 301 *Standards of Performance For MSW Landfills* states:

> The federal standards of performance for municipal solid waste landfills set forth in 40 CFR Part 60, Subpart WWW is adopted as codified on July 1, 2016, and all accompanying appendices, excluding 40 CFR 60.750, are adopted and incorporated by reference with the amendments and revisions set forth in this section. This adoption by reference includes no future editions or revisions. Each owner or operator of an affected facility shall comply with the requirements of 40 CFR Part 60, Subpart WWW as adopted and, where applicable, revised herein.

The MCAQD is proposing to revise Rule 321 to reflect the requirements in 40 CFR 60, Subpart Cf-Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills as promulgated August 29, 2016 (81 Fed. Reg. 59313).

VI The MCAQD process, as stipulated in 40 CFR Part 60, Subpart Cf, for review and approval of site-specific gas collection and control system design plans.

The EPA regulations require a State plan to have a process for reviewing the gas collection and control system design plans of specific existing MSW landfills when a facility crosses the regulatory emissions threshold for installation of a gas collection and control system.

The MCAQD is proposing to revise Rule 321 to reflect the requirements in 40 CFR 60, Subpart Cf-Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills as promulgated August 29, 2016 (81 Fed. Reg. 59313).

VII Compliance schedules, extending no later than 30 months after the date the annual non-methane organic compound emission rate reaches or exceeds 34 megagrams (Mg) per year.

The EPA regulations require a State plan to provide for schedules that regulated MSW landfill sources must adhere to when they are required to install emission control systems.

The MCAQD is proposing to revise Rule 321 to reflect the requirements in 40 CFR 60, Subpart Cf-Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills as promulgated August 29, 2016 (81 Fed. Reg. 59313).

VIII Testing, monitoring, recordkeeping, and reporting requirements.

The EPA regulations require a State plan to provide for MSW landfill sources to conduct testing, monitoring, recordkeeping, and reporting as called for by the EPA emission guidelines.

The MCAQD is proposing to revise Rule 321 to reflect the requirements in 40 CFR 60, Subpart Cf-Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills as promulgated August 29, 2016 (81 Fed. Reg. 59313).

IX A record of public hearing(s) on the MCAQD plan.

The EPA regulations require a State plan submittal to demonstrate compliance with federal requirements for a public hearing on a proposed plan. These requirements are specified at 40 CFR § 60.23(c), (d), and (f).

The MCAQD's record of public hearing(s) on the MCAQD plan include the following.

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See also Appendix O of this document.

1) Notice of the public hearing that appeared in the *Arizona Business Gazette* and *The Record Reporter*, as well as evidence that the notice was circulated electronically to the email list serve of the GovDelivery at least 30 days prior to the Maricopa County Board of Supervisor's hearing on adoption of the plan. These notices prominently advertised within Phoenix and Maricopa County the date, time and place of the hearing.

2) Information in the above notices stated that a draft of the plan was made available for public inspection both at the MCAQD offices in Phoenix, Arizona and via the internet.

3) The hearing documents included information that the notice of the hearing was provided to the EPA Regional Administrator, local affected solid waste agencies, and the Arizona Department of Environmental Quality.

4) A certified copy of the action taken by the Board at a public hearing that includes a transcript of the hearing, testimony and exhibits that were presented.

X Provision for annual MCAQD progress reports to the EPA on implementation of the MCAQD plan.

The EPA regulations require states to submit annual progress reports on the progress of plan enforcement.

The MCAQD will submit annual progress reports to the EPA documenting the progress of plan.

Appendices

Appendix A: Landfills subject to 40 CFR 60, Subpart Cf

Appendix B: An inventory of potential non-methane organic compounds (NMOC) emissions from existing MSW landfills within the jurisdiction of the MCAQD or Emission Inventory for Maricopa County MSW Landfills

Appendix C: LandGEM Emissions for MSW landfills within Maricopa County

Appendix D: The "correlated" inventory between 40 CFR Part 60, Subpart Cc and 40 CFR 60, Subpart Cf.

Appendix E: Maricopa County Air Pollution Control Regulations, Regulation III-Control of Air Contaminants, Rule 321, *Municipal Solid Waste Landfills.*

Appendix F: Maricopa County Air Pollution Control Regulations, Regulation III-Control of Air Contaminants, Rule 360, *New Source Performance Standards*.

Appendix G: Municipal Solid Waste Landfills, Volume 2: Summary of the Requirements for Section 111(d) State Plans for Implementing the Municipal Solid Waste Landfills Emission Guidelines.

Appendix H: Clean Air Act Section 111(d)

Appendix I: 40 CFR 60, Subpart B-Adoption and Submittal of State Plans for Designated Facilities

Appendix J: 40 CFR 60, Subpart Cc

Appendix K: 40 CFR 60, Subpart Cf

Appendix L: 40 CFR 60, Subpart WWW

Appendix M: 40 CFR 60 Subpart XXX

Appendix N: Key Elements of an Acceptable Section 111(d) State Plan

Appendix O: A Record Of Public Hearing(s) On The MCAQD Plan.

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Appendix A

Maricopa County MSW Landfills subject to

40 CFR 60, Subpart Cf

Appendix B

An inventory of potential non-methane organic compounds (NMOC) emissions from existing MSW landfills within the jurisdiction of the MCAQD or Emission Inventory for Maricopa County MSW Landfills

Appendix C

LandGEM Emissions for MSW Landfills

Within Maricopa County

Appendix D

The "correlated" inventory between

40 CFR Part 60, Subpart Cc and 40 CFR 60, Subpart Cf.

Appendix E

Maricopa County Air Pollution Control Regulations

Regulation III-Control of Air Contaminants

Rule 321

Municipal Solid Waste Landfills.

As accessed February 14, 2017, at:

https://www.maricopa.gov/1951/Adopted-Rules

DRAFT-For Review And Discussion-DRAFT
March 10, 2017

MARICOPA COUNTY
AIR POLLUTION CONTROL REGULATIONS
REGULATION III – CONTROL OF AIR CONTAMINANTS

RULE 321
MUNICIPAL SOLID WASTE LANDFILLS

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SECTION 500 – MONITORING AND RECORDS (NOT APPLICABLE)

Adopted 05/14/1997; Revised 03/01/2000; Revised 03/07/2001; Revised 11/19/2003; Revised 03/15/2006; Revised 12/17/2008; Revised 09/16/2009; Revised 07/07/2010; Revised 08/17/2011; Revised 07/25/2012; Revised 03/26/2014; Revised 11/05/2014; Revised 11/18/2015; and **Revised 11/02/2016**.

REGULATION III – CONTROL OF AIR CONTAMINANTS

RULE 321
MUNICIPAL SOLID WASTE LANDFILLS

SECTION 100 – GENERAL

101 PURPOSE: To limit the emission of non-methane organic compounds from municipal solid waste landfills.

102 APPLICABILITY: The provisions of this rule shall apply to each municipal solid waste landfill for which construction, reconstruction, or modification commenced prior to May 30, 1991, and which has accepted waste at any time since November 8, 1987, or has additional design capacity available for future waste deposition.

103 AVAILABILITY OF INFORMATION: Copies of 40 CFR Part 60, Subpart WWW – Standards of Performance for Municipal Solid Waste Landfills, are available as listed:

a. Maricopa County Air Quality Department, 1001 N. Central Ave, Suite 125, Phoenix, AZ, 85004.

b. Maricopa County Rules are available electronically at http://www.maricopa.gov/aq.

c. EPA documents are available electronically at http://www.gpo.gov/fdsys/browse/collectionCfr.action?collectionCode=CFR.

d. ASTM standards are available from ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428, or from its website at www.astm.org.

SECTION 200 – DEFINITIONS: See Rule 100 of these rules for definitions of terms that are used but not specifically defined in this rule. For the purpose of this rule, the following definitions shall apply, in addition to those definitions found in Rule 100 (General Provisions and Definitions) of these rules. In the event of any inconsistency between any of the Maricopa County air pollution control rules, the definitions in this rule take precedence.

201 ADMINISTRATOR: The Control Officer, except that the Control Officer shall not be empowered to approve alternative or equivalent test methods.

202 AFFECTED FACILITY: Any municipal solid waste landfill to which this rule is applicable.

203 COMMENCED: State or condition where an owner or operator has undertaken a continuous program of construction; or where an owner or operator has entered into a contractual obligation to undertake and complete such a program.

204 CONSTRUCTION: The fabrication, erection, or installation of an affected facility.

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205 MODIFICATION: Any physical change in, or change in the method of operation of, an affected facility which would result in a change in actual emissions.

206 MUNICIPAL SOLID WASTE LANDFILL (MSW LANDFILL): An entire, publicly or privately owned, disposal facility in a contiguous geographical space where household waste is placed in or on land. Portions of a MSW landfill may be separated by access roads.

207 NMOC: Non-methane organic compound.

208 OWNER OR OPERATOR: Any person who owns, leases, operates, controls, or supervises an affected facility.

SECTION 300 – STANDARDS

301 STANDARDS OF PERFORMANCE FOR MSW LANDFILLS The federal standards of performance for municipal solid waste landfills set forth in 40 CFR Part 60, Subpart WWW is adopted as codified on July 1, 2016, and all accompanying appendices, excluding 40 CFR 60.750, are adopted and incorporated by reference with the amendments and revisions set forth in this section. This adoption by reference includes no future editions or revisions. Each owner or operator of an affected facility shall comply with the requirements of 40 CFR Part 60, Subpart WWW as adopted and, where applicable, revised herein.

301.1 Collection and Control System Design Plan: 40 CFR 60.752(b)(2)(i) is amended to read: "Submit a collection and control design plan prepared by a professional engineer to the Administrator for approval not later than 12 months after submittal of the initial NMOC emission rate report."

301.2 Design Capacity Report: 40 CFR 60.757(a) is amended to read "Each owner or operator of an affected facility shall submit an initial design capacity report to the Administrator within 90 days from May 14, 1997." 40 CFR 60.757(a)(1) is deleted.

301.3 NMOC Emission Rate Report: 40 CFR 60.757(b) is amended to read "Each owner or operator of an affected facility shall submit an NMOC emission rate report to the Administrator initially and annually thereafter, except as provided for in paragraphs (b)(1)(ii) or (b)(3) of this section. The Administrator may request such additional information as may be necessary to verify the reported NMOC emission rate." 40 CFR 60.757(b)(1)(i) is amended to read: "The initial NMOC emission rate report shall be submitted within 90 days from May 14, 1997 and may be combined with the initial design capacity report required in paragraph (a) of this section. Subsequent NMOC emission rate reports shall be submitted annually thereafter, except as provided for in paragraphs (b)(1)(ii) and (b)(3) of this section."

302 DELAYED APPLICABILITY: For an affected facility that first becomes subject to the collection and control system requirement of 40 CFR 60.752 after May 14, 1997, the design plan shall be due not later than 12 months after submittal or scheduled submittal of an NMOC emission rate report of 50 megagrams (55.12 tons) per year or more.

SECTION 400 – ADMINISTRATIVE REQUIREMENTS (NOT APPLICABLE)

SECTION 500 – MONITORING AND RECORDS (NOT APPLICABLE)

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Appendix F

Maricopa County Air Pollution Control Regulations

Regulation III-Control of Air Contaminants

Rule 360

New Source Performance Standards

As accessed February 14, 2017, at:

https://www.maricopa.gov/DocumentCenter/View/5283

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March 10, 2017

MARICOPA COUNTY
AIR POLLUTION CONTROL REGULATIONS
REGULATION III – CONTROL OF AIR CONTAMINANTS

RULE 360
NEW SOURCE PERFORMANCE STANDARDS

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SECTION 400 – ADMINISTRATIVE REQUIREMENTS (NOT APPLICABLE)

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Revised 07/13/1988; Revised 04/06/1992; Revised 11/20/1996; Revised 05/14/1997; Revised 08/19/1998; Revised 04/07/1999; Revised 03/01/2000; Revised 03/07/2001; Revised 11/19/2003; Revised 03/15/2006; Revised 12/17/2008; Revised 09/16/2009; Revised 07/07/2010; Revised 08/17/2011; Revised 07/25/2012; Revised 03/26/2014; Revised 11/05/2014; Revised 11/18/2015; and **Revised 11/02/2016**.

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March 10, 2017

MARICOPA COUNTY
AIR POLLUTION CONTROL REGULATIONS
REGULATION III – CONTROL OF AIR CONTAMINANTS

RULE 360
NEW SOURCE PERFORMANCE STANDARDS

SECTION 100 – GENERAL

101 PURPOSE: To establish acceptable design and performance criteria for specified new or modified emission sources.

102 APPLICABILITY: The provisions of this rule apply to the owner or operator of any stationary source which contains an affected facility on which the construction, reconstruction, or a modification is commenced after the date of publication of any standard applicable to such facility in 40 CFR Part 60 and for which federal delegation of the implementation and enforcement of the standards to the Maricopa County Air Quality Department (department) has been accomplished. Any such stationary source must also comply with other Maricopa County Air Pollution Control Regulations.

103 AVAILABILITY OF INFORMATION: Copies of all 40 CFR, Part 60 revisions currently enforced by the department are available as listed:

a. Maricopa County Air Quality Department, 1001 N. Central Ave, Suite 125, Phoenix, AZ, 85004.

b. Maricopa County Rules are available electronically at http://www.maricopa.gov/aq.

c. EPA documents are available electronically at http://www.gpo.gov/fdsys/browse/collectionCfr.action?collectionCode=CFR.

d. ASTM standards are available from ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428, or from its website at www.astm.org.

104 FEDERAL DELEGATION AUTHORITY: The department shall enforce the federal new source performance standards (NSPS) (40 CFR Part 60) listed in Section 300 of this rule which have been delegated to the County by the United States Environmental Protection Agency (EPA) for such enforcement. The department may, in addition, enforce such other NSPS as delegated for such enforcement by the EPA to the County.

SECTION 200 – DEFINITIONS: For the purpose of this rule, the following definitions shall apply, in addition to those definitions found in Rule 100 (General Provisions and Definitions) of these rules. In the event of any inconsistency between any of the Maricopa County air pollution control rules, the definitions in this rule take precedence.

201 ADMINISTRATOR: As used in Part 60, Title 40, Code of Federal Regulations, shall mean

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the Control Officer, except that the Control Officer shall not be empowered to approve alternate or equivalent test methods or alternative standards/work practices, or other nondelegable authorities such as those listed in 40 CFR 60.4(d), except as specifically provided in each subpart.

202 AFFECTED FACILITY – With reference to a stationary source, any apparatus to which a standard is applicable.

203 COMMENCED: With respect to the definition of "new source" in Section 111(a)(2) of the Act, that an owner or operator has undertaken a continuous program of construction, reconstruction, or modification or that an owner or operator has entered into a contracted obligation to undertake and complete, within a reasonable time, a continuous program of construction, reconstruction or modification.

204 CONSTRUCTION: The fabrication, erection, or installation of an affected facility.

205 MODIFICATION: Any physical change in, or change in the method of operation of, an existing facility which increases the amount of any contaminant (to which a standard applies) emitted into the atmosphere by that facility or which results in the emission of any air contaminant (to which a standard applies) into the atmosphere not previously emitted.

206 OWNER OR OPERATOR: Any person who owns, leases, operates, controls, or supervises an affected facility or a stationary source of which an affected facility is a part.

207 STANDARD: A standard of performance promulgated under this rule.

208 STATIONARY SOURCE: Any building, structure, facility, or installation which emits or may emit any air pollutant.

SECTION 300 – STANDARDS

301 ADOPTED FEDERAL STANDARDS: The following federal regulations located in the U.S. Code of Federal Regulations, Part 60 of Title 40, Subchapter C (CFR) as codified on July 1, 2016, are herein incorporated by reference in Maricopa County's Air Pollution Control Regulations. This incorporation by reference includes no future editions or amendments. Each owner or operator subject to the requirements of the following subparts shall comply with the requirements of those subparts and the additional requirements set forth herein. Incorporation by reference does not include nondelegable functions of the EPA Administrator.

301.1 Subpart A—General Provisions; exclude any sections dealing with equivalency determinations or innovative technology waivers, as covered in Sections 111(h)(3) and 111(j) respectively of the Clean Air Act.

301.2 Subpart D—Standards of Performance for Fossil-Fuel-Fired Steam Generators for

which Construction is Commenced after August 17, 1971.

301.3 Subpart Da—Standards of Performance for Electric Utility Steam Generating Units for which Construction is Commenced after September 18, 1978.

301.4 Subpart Db—Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units.

301.5 Subpart Dc—Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units.

301.6 Subpart E—Standards of Performance for Incinerators.

301.7 Subpart Ea—Standards of Performance for Municipal Waste Combustors for which Construction is Commenced after December 20, 1989 and on or before September 20, 1994.

301.8 Subpart Eb—Standards of Performance for Large Municipal Waste Combustors for which Construction is Commenced after September 20, 1994 or for which Modification or Reconstruction is Commenced after June 19, 1996.

301.9 Subpart Ec—Standards of Performance for Hospital/Medical/Infectious Waste Incinerators for which Construction is Commenced after June 20, 1996.

301.10 Subpart F—Standards of Performance for Portland Cement Plants.

301.11 Subpart G—Standards of Performance for Nitric Acid Plants.

301.12 Subpart Ga—Standards of Performance for Nitric Acid Plants for Which Construction, Reconstruction, or Modification Commenced After October 14, 2011.

301.13 Subpart H—Standards of Performance for Sulfuric Acid Plants.

301.14 Subpart I—Standards of Performance for Hot Mix Asphalt Facilities.

301.15 Subpart J—Standards of Performance for Petroleum Refineries.

301.16 Subpart Ja—Standards of Performance for Petroleum Refineries for which Construction, Reconstruction, or Modification Commenced after May 14, 2007.

301.17 Subpart K—Standards of Performance for Storage Vessels for Petroleum Liquids for which Construction, Reconstruction, or Modification Commenced after June 11, 1973, and prior to May 19, 1978.

301.18 Subpart Ka—Standards of Performance for Storage Vessels for Petroleum Liquids for which Construction, Reconstruction, or Modification Commenced

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after May 18, 1978, and prior to July 23, 1984.

301.19 Subpart Kb—Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for which Construction, Reconstruction, or Modification Commenced after July 23, 1984.

301.20 Subpart L—Standards of Performance for Secondary Lead Smelters.

301.21 Subpart M—Standards of Performance for Secondary Brass and Bronze Production Plants.

301.22 Subpart N—Standards of Performance for Primary Emissions from Basic Oxygen Process Furnaces for which Construction Commenced after June 11, 1973.

301.23 Subpart Na—Standards of Performance for Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for which Construction Commenced after January 20, 1983.

301.24 Subpart O—Standards of Performance for Sewage Treatment Plants.

301.25 Subpart P—Standards of Performance for Primary Copper Smelters.

301.26 Subpart Q—Standards of Performance for Primary Zinc Smelters.

301.27 Subpart R—Standards of Performance for Primary Lead Smelters.

301.28 Subpart S—Standards of Performance for Primary Aluminum Reduction Plants.

301.29 Subpart T—Standards of Performance for the Phosphate Fertilizer Industry: Wet-Process Phosphoric Acid Plants.

301.30 Subpart U—Standards of Performance for the Phosphate Fertilizer Industry: Superphosphoric Acid Plants.

301.31 Subpart V—Standards of Performance for the Phosphate Fertilizer Industry: Diammonium Phosphate Plants.

301.32 Subpart W—Standards of Performance for the Phosphate Fertilizer Industry: Triple Superphosphate Plants.

301.33 Subpart X—Standards of Performance for the Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities.

301.34 Subpart Y—Standards of Performance for Coal Preparation and Processing Plants.

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301.35 Subpart Z—Standards of Performance for Ferroalloy Production Facilities.

301.36 Subpart AA—Standards of Performance for Steel Plants: Electric Arc Furnaces Constructed after October 21, 1974, and on or before August 17, 1983.

301.37 Subpart AAa—Standards of Performance for Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed after August 17, 1983.

301.38 Subpart BB—Standards of Performance for Kraft Pulp Mills.

301.39 Subpart BBa— Standards of Performance for Kraft Pulp Mill Affected Sources for Which Construction, Reconstruction, or Modification Commenced After May 23, 2013.

301.40 Subpart CC—Standards of Performance for Glass Manufacturing Plants.

301.41 Subpart DD—Standards of Performance for Grain Elevators.

301.42 Subpart EE—Standards of Performance for Surface Coating of Metal Furniture.

301.43 Subpart FF—(Reserved)

301.44 Subpart GG—Standards of Performance for Stationary Gas Turbines.

301.45 Subpart HH—Standards of Performance for Lime Manufacturing Plants.

301.46 Subpart II—(Reserved)

301.47 Subpart JJ—(Reserved)

301.48 Subpart KK—Standards of Performance for Lead-Acid Battery Manufacturing Plants.

301.49 Subpart LL—Standards of Performance for Metallic Mineral Processing Plants.

301.50 Subpart MM—Standards of Performance for Automobile and Light Duty Truck Surface Coating Operations.

301.51 Subpart NN—Standards of Performance for Phosphate Rock Plants.

301.52 Subpart OO—(Reserved)

301.53 Subpart PP—Standards of Performance for Ammonium Sulfate Manufacture.

301.54 Subpart QQ—Standards of Performance for the Graphic Arts Industry: Publication Rotogravure Printing.

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301.55 Subpart RR—Standards of Performance for Pressure Sensitive Tape and Label Surface Coating Operations.

301.56 Subpart SS—Standards of Performance for Industrial Surface Coating: Large Appliances.

301.57 Subpart TT—Standards of Performance for Metal Coil Surface Coating.

301.58 Subpart UU—Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture.

301.59 Subpart VV—Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for which Construction, Reconstruction, or Modification Commenced after January 5, 1981, and on or before November 7, 2006.

301.60 Subpart VVa—Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for which Construction, Reconstruction, or Modification Commenced after November 7, 2006.

301.61 Subpart WW—Standards of Performance for the Beverage Can Surface Coating Industry.

301.62 Subpart XX—Standards of Performance for Bulk Gasoline Terminals.

301.63 Subpart YY—(Reserved)

301.64 Subpart ZZ—(Reserved)

301.65 Subpart AAA—Standards of Performance for New Residential Wood Heaters.

301.66 Subpart BBB—Standards of Performance for the Rubber Tire Manufacturing Industry.

301.67 Subpart CCC—(Reserved)

301.68 Subpart DDD—Standards of Performance for Volatile Organic Compound (VOC) Emissions from the Polymer Manufacturing Industry.

301.69 Subpart EEE—(Reserved)

301.70 Subpart FFF—Standards of Performance for Flexible Vinyl and Urethane Coating and Printing.

301.71 Subpart GGG—Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries for which Construction, Reconstruction, or Modification Commenced after January 4, 1983, and on or before November 7, 2006.

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301.72 Subpart GGGa—Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries for which Construction, Reconstruction, or Modification Commenced after November 7, 2006.

301.73 Subpart HHH—Standards of Performance for Synthetic Fiber Production Facilities.

301.74 Subpart III—Standards of Performance for Volatile Organic Compound (VOC) Emissions from the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes.

301.75 Subpart JJJ—Standards of Performance for Petroleum Dry Cleaners.

301.76 Subpart KKK—Standards of Performance for Equipment Leaks of VOC from Onshore Natural Gas Processing Plants.

301.77 Subpart LLL—Standards of Performance for Onshore Natural Gas Processing: SO_2 Emissions.

301.78 Subpart MMM—(Reserved)

301.79 Subpart NNN—Standards of Performance for Volatile Organic Compound (VOC) Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations.

301.80 Subpart OOO—Standards of Performance for Nonmetallic Mineral Processing Plants.

301.81 Subpart PPP—Standard of Performance for Wool Fiberglass Insulation Manufacturing Plants.

301.82 Subpart QQQ—Standards of Performance for VOC Emissions from Petroleum Refinery Wastewater Systems.

301.83 Subpart RRR—Standards of Performance for Volatile Organic Compound (VOC) Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes.

301.84 Subpart SSS—Standards of Performance for Magnetic Tape Coating Facilities.

301.85 Subpart TTT—Standards of Performance for Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines.

301.86 Subpart UUU—Standards of Performance for Calciners and Dryers in Mineral Industries.

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301.87 Subpart VVV—Standards of Performance for Polymeric Coating of Supporting Substrates Facilities.

301.88 Subpart WWW—Standards of Performance for Municipal Solid Waste Landfills.

301.89 Subpart XXX—(Reserved)

301.90 Subpart YYY—(Reserved)

301.91 Subpart ZZZ—(Reserved)

301.92 Subpart AAAA—Standards of Performance for Small Municipal Waste Combustion Units for which Construction is Commenced after August 30, 1999 or for which Modification or Reconstruction is Commenced after June 6, 2001.

301.93 Subpart CCCC—Standards of Performance for Commercial and Industrial Solid Waste Incineration Units for which Construction is Commenced after November 30, 1999 or for which Modification or Reconstruction is Commenced on or after June 1, 2001.

301.94 Subpart EEEE—Standards of Performance for Other Solid Waste Incineration Units for which Construction is Commenced after December 9, 2004, or for which Modification or Reconstruction is Commenced on or after June 16, 2006.

301.95 Subpart GGGG—(Reserved)

301.96 Subpart HHHH—(Reserved)

301.97 Subpart IIII—Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.

301.98 Subpart JJJJ—Standards of Performance for Stationary Spark Ignition Internal Combustion Engines.

301.99 Subpart KKKK—Standards of Performance for Stationary Combustion Turbines.

301.100 Subpart LLLL—Standards of Performance for New Sewage Sludge Incineration Units.

301.101 Subpart NNNN—(Reserved)

301.102 Subpart OOOO—Standards for Crude Oil and Natural Gas Production, Transmission and Distribution.

301.103 Subpart PPPP—(Reserved)

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301.104 Subpart QQQQ—Standards of Performance for New Residential Hydronic Heaters and Forced-Air Furnaces.

301.105 Subpart RRRR—(Reserved)

301.106 Subpart SSSS—(Reserved)

301.107 Subpart TTTT—Standards of Performance for Greenhouse Gas Emissions for Electric Generating Units

302 ADDITIONAL REQUIREMENTS: From the general standards identified in Section 301 of this rule, delete 40 CFR 60.4, §60.5, and §60.6. All requests, reports, applications, submittals, and other communications to the Control Officer pursuant to this rule shall be submitted to the Maricopa County Air Quality Department, 1001 N. Central Ave., Suite 125, Phoenix, AZ, 85004.

SECTION 400 – ADMINISTRATIVE REQUIREMENTS (NOT APPLICABLE)

SECTION 500 – MONITORING AND RECORDS (NOT APPLICABLE)

Appendix G

Municipal Solid Waste Landfills, Volume 2: Summary of the Requirements for Section 111(d) State Plans for Implementing the Municipal Solid Waste Landfills Emission Guidelines.

This document can be accessed at
https://nepis.epa.gov/Exe/ZyNET.exe/2000F3BG.TXT?ZyActionD=ZyDocument&Client=EPA&Index=1995+Thru+1999&Docs=&Query=&Time=&EndTime=&SearchMethod=1&TocRestrict=n&Toc=&TocEntry=&QField=&QFieldYear=&QFieldMonth=&QFieldDay=&IntQFieldOp=0&ExtQFieldOp=0&XmlQuery=&File=D%3A%5Czyfiles%5CIndex%20Data%5C95thru99%5CTxt%5C00000012%5C2000F3BG.txt&User=ANONYMOUS&Password=anonymous&SortMethod=h%7C-&MaximumDocuments=1&FuzzyDegree=0&ImageQuality=r75g8/r75g8/x150y150g16/i425&Display=hpfr&DefSeekPage=x&SearchBack=ZyActionL&Back=ZyActionS&BackDesc=Results%20page&MaximumPages=1&ZyEntry=1&SeekPage=x&ZyPURL

Appendix H

Clean Air Act Section 111(d)

And

42 U.S.C. §7411

Standards of Performance for New Stationary Sources

As accessed February 14, 2017, at:

https://www.gpo.gov/fdsys/pkg/USCODE-2013-title42/html/USCODE-2013-title42-chap85-subchapI-partA-sec7411.htm

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DRAFT-For Review And Discussion-DRAFT
March 10, 2017

Clean Air Act Section 111(d)

And

42 U.S.C. §7411

Standards of Performance for New Stationary Sources

(d) Standards of performance for existing sources; remaining useful life of source

(1) The Administrator shall prescribe regulations which shall establish a procedure similar to that provided by section 7410 of this title under which each State shall submit to the Administrator a plan which (A) establishes standards of performance for any existing source for any air pollutant (i) for which air quality criteria have not been issued or which is not included on a list published under section 7408(a) of this title or emitted from a source category which is regulated under section 7412 of this title but (ii) to which a standard of performance under this section would apply if such existing source were a new source, and (B) provides for the implementation and enforcement of such standards of performance. Regulations of the Administrator under this paragraph shall permit the State in applying a standard of performance to any particular source under a plan submitted under this paragraph to take into consideration, among other factors, the remaining useful life of the existing source to which such standard applies.

(2) The Administrator shall have the same authority—

(A) to prescribe a plan for a State in cases where the State fails to submit a satisfactory plan as he would have under section 7410(c) of this title in the case of failure to submit an implementation plan, and

(B) to enforce the provisions of such plan in cases where the State fails to enforce them as he would have under sections 7413 and 7414 of this title with respect to an implementation plan.

In promulgating a standard of performance under a plan prescribed under this paragraph, the Administrator shall take into consideration, among other factors, remaining useful lives of the sources in the category of sources to which such standard applies.

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Appendix I

40 CFR 60, Subpart B

Adoption and Submittal of State Plans for Designated Facilities

As accessed February 14, 2017, at:

http://www.ecfr.gov/cgi-bin/text-idx?SID=9e520e5fb02f99b601dd36ef7e3a700f&mc=true&node=sp40.7.60.b&rgn=div6

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40 CFR 60, Subpart B—Adoption and Submittal of State Plans for Designated Facilities

SOURCE: 40 FR 53346, Nov. 17, 1975, unless otherwise noted.

§60.20 Applicability.

The provisions of this subpart apply to States upon publication of a final guideline document under §60.22(a).

§60.21 Definitions.

Terms used but not defined in this subpart shall have the meaning given them in the Act and in subpart A:

(a) *Designated pollutant* means any air pollutant, the emissions of which are subject to a standard of performance for new stationary sources, but for which air quality criteria have not been issued and that is not included on a list published under section 108(a) or section 112(b)(1)(A) of the Act.

(b) *Designated facility* means any existing facility (see §60.2(aa)) which emits a designated pollutant and which would be subject to a standard of performance for that pollutant if the existing facility were an affected facility (see §60.2(e)).

(c) *Plan* means a plan under section 111(d) of the Act which establishes emission standards for designated pollutants from designated facilities and provides for the implementation and enforcement of such emission standards.

(d) *Applicable plan* means the plan, or most recent revision thereof, which has been approved under §60.27(b) or promulgated under §60.27(d).

(e) *Emission guideline* means a guideline set forth in subpart C of this part, or in a final guideline document published under §60.22(a), which reflects the degree of emission reduction achievable through the application of the best system of emission reduction which (taking into account the cost of such reduction) the Administrator has determined has been adequately demonstrated for designated facilities.

(f) *Emission standard* means a legally enforceable regulation setting forth an allowable rate of emissions into the atmosphere, establishing an allowance system, or prescribing equipment specifications for control of air pollution emissions.

(g) *Compliance schedule* means a legally enforceable schedule specifying a date or dates by which a source or category of sources must comply with specific emission standards contained in a plan or with any increments of progress to achieve such compliance.

(h) *Increments of progress* means steps to achieve compliance which must be taken by an owner or operator of a designated facility, including:

(1) Submittal of a final control plan for the designated facility to the appropriate air pollution control agency;

(2) Awarding of contracts for emission control systems or for process modifications, or issuance of orders for the purchase of component parts to accomplish emission control or process modification;

(3) Initiation of on-site construction or installation of emission control equipment or process change;

(4) Completion of on-site construction or installation of emission control equipment or process change; and

(5) Final compliance.

(i) *Region* means an air quality control region designated under section 107 of the Act and described in part 81 of this chapter.

(j) *Local agency* means any local governmental agency.

[40 FR 53346, Nov. 17, 1975, as amended at 70 FR 28649, May 18, 2005; 77 FR 9447, Feb. 16, 2012]

§60.22 Publication of guideline documents, emission guidelines, and final compliance times.

(a) Concurrently upon or after proposal of standards of performance for the control of a designated pollutant from affected facilities, the Administrator will publish a draft guideline document containing information pertinent to control of the designated pollutant form designated facilities. Notice of the availability of the draft guideline document will be published in the FEDERAL REGISTER and public comments on its contents will be invited. After consideration of public comments and upon or after promulgation of standards of performance for control of a designated pollutant from affected facilities, a final guideline document will be published and notice of its availability will be published in the FEDERAL REGISTER.

(b) Guideline documents published under this section will provide information for the development of State plans, such as:

(1) Information concerning known or suspected endangerment of public health or welfare caused, or contributed to, by the designated pollutant.

(2) A description of systems of emission reduction which, in the judgment of the Administrator, have been adequately demonstrated.

(3) Information on the degree of emission reduction which is achievable with each system, together with information on the costs and environmental effects of applying each system to designated facilities.

(4) Incremental periods of time normally expected to be necessary for the design, installation, and startup of identified control systems.

(5) An emission guideline that reflects the application of the best system of emission reduction (considering the cost of such reduction) that has been adequately demonstrated for designated facilities, and the time within which compliance with emission standards of equivalent stringency can be achieved. The Administrator will specify different emission guidelines or compliance times or both for different sizes, types, and classes of designated facilities when costs of control, physical limitations, geographical location, or similar factors make subcategorization appropriate. (6) Such other available information as the Administrator determines may contribute to the formulation of State plans.

(c) Except as provided in paragraph (d)(1) of this section, the emission guidelines and compliance times referred to in paragraph (b)(5) of this section will be proposed for comment upon publication of the draft guideline document, and after consideration of comments will be promulgated in subpart C of this part with such modifications as may be appropriate.

(d)(1) If the Administrator determines that a designated pollutant may cause or contribute to endangerment of public welfare, but that adverse effects on public health have not been demonstrated, he will include the determination in the draft guideline document and in the FEDERAL REGISTER notice of its availability. Except as provided in paragraph (d)(2) of this section, paragraph (c) of this section shall be inapplicable in such cases.

(2) If the Administrator determines at any time on the basis of new information that a prior determination under paragraph (d)(1) of this section is incorrect or no longer correct, he will publish notice of the determination in the FEDERAL REGISTER, revise the guideline document as necessary under paragraph (a) of this section, and propose and promulgate emission guidelines and compliance times under paragraph (c) of this section.

[40 FR 53346, Nov. 17, 1975, as amended at 54 FR 52189, Dec. 20, 1989]

§60.23 Adoption and submittal of State plans; public hearings.

(a)(1) Unless otherwise specified in the applicable subpart, within 9 months after notice of the availability of a final guideline document is published under §60.22(a), each State shall adopt and submit to the Administrator, in accordance with §60.4 of subpart A of this part, a plan for the control of the designated pollutant to which the guideline document applies.

(2) Within nine months after notice of the availability of a final revised guideline document is published as provided in §60.22(d)(2), each State shall adopt and submit to the Administrator any plan revision necessary to meet the requirements of this subpart.

(b) If no designated facility is located within a State, the State shall submit a letter of certification to that effect to the Administrator within the time specified in paragraph (a) of this section. Such certification shall exempt the State from the requirements of this subpart for that designated pollutant.

(c)(1) Except as provided in paragraphs (c)(2) and (c)(3) of this section, the State shall, prior to the adoption of any plan or revision thereof, conduct one or more public hearings within the State on such plan or plan revision.

(2) No hearing shall be required for any change to an increment of progress in an approved compliance schedule unless the change is likely to cause the facility to be unable to comply with the final compliance date in the schedule.

(3) No hearing shall be required on an emission standard in effect prior to the effective date of this subpart if it was adopted after a public hearing and is at least as stringent as the corresponding emission guideline specified in the applicable guideline document published under §60.22(a).

(d) Any hearing required by paragraph (c) of this section shall be held only after reasonable notice. Notice shall be given at least 30 days prior to the date of such hearing and shall include:

(1) Notification to the public by prominently advertising the date, time, and place of such hearing in each region affected;

(2) Availability, at the time of public announcement, of each proposed plan or revision thereof for public inspection in at least one location in each region to which it will apply;

(3) Notification to the Administrator;

(4) Notification to each local air pollution control agency in each region to which the plan or revision will apply; and

(5) In the case of an interstate region, notification to any other State included in the region.

(e) The State shall prepare and retain, for a minimum of 2 years, a record of each hearing for inspection by any interested party. The record shall contain, as a minimum, a list of witnesses together with the text of each presentation.

(f) The State shall submit with the plan or revision:

(1) Certification that each hearing required by paragraph (c) of this section was held in accordance with the notice required by paragraph (d) of this section; and

(2) A list of witnesses and their organizational affiliations, if any, appearing at the hearing and a brief written summary of each presentation or written submission.

(g) Upon written application by a State agency (through the appropriate Regional Office), the Administrator may approve State procedures designed to insure public participation in the matters for which hearings are required and public notification of the opportunity to participate if, in the judgment of the Administrator, the procedures, although different from the requirements of this subpart, in fact provide for adequate notice to and participation of the public. The Administrator may impose such conditions on his approval as he deems necessary. Procedures approved under this section shall be deemed to satisfy the requirements of this subpart regarding procedures for public hearings.

[40 FR 53346, Nov. 17, 1975, as amended at 60 FR 65414, Dec. 19, 1995]

§60.24 Emission standards and compliance schedules.

(a) Each plan shall include emission standards and compliance schedules.

(b) (1) Emission standards shall either be based on an allowance system or prescribe allowable rates of emissions except when it is clearly impracticable. Such cases will be identified in the guideline documents issued under §60.22. Where emission standards prescribing equipment specifications are established, the plan shall, to the degree possible, set forth the emission reductions achievable by implementation of such specifications, and may permit compliance by the use of equipment determined by the State to be equivalent to that prescribed.

(2) Test methods and procedures for determining compliance with the emission standards shall be specified in the plan. Methods other than those specified in appendix A to this part may be specified in the plan if shown to be equivalent or alternative methods as defined in §60.2 (t) and (u).

(3) Emission standards shall apply to all designated facilities within the State. A plan may

contain emission standards adopted by local jurisdictions provided that the standards are enforceable by the State.

(c) Except as provided in paragraph (f) of this section, where the Administrator has determined that a designated pollutant may cause or contribute to endangerment of public health, emission standards shall be no less stringent than the corresponding emission guideline(s) specified in subpart C of this part, and final compliance shall be required as expeditiously as practicable but no later than the compliance times specified in subpart C of this part.

(d) Where the Administrator has determined that a designated pollutant may cause or contribute to endangerment of public welfare but that adverse effects on public health have not been demonstrated, States may balance the emission guidelines, compliance times, and other information provided in the applicable guideline document against other factors of public concern in establishing emission standards, compliance schedules, and variances. Appropriate consideration shall be given to the factors specified in §60.22(b) and to information presented at the public hearing(s) conducted under §60.23(c).

(e)(1) Any compliance schedule extending more than 12 months from the date required for submittal of the plan must include legally enforceable increments of progress to achieve compliance for each designated facility or category of facilities. Unless otherwise specified in the applicable subpart, increments of progress must include, where practicable, each increment of progress specified in §60.21(h) and must include such additional increments of progress as may be necessary to permit close and effective supervision of progress toward final compliance.

(2) A plan may provide that compliance schedules for individual sources or categories of sources will be formulated after plan submittal. Any such schedule shall be the subject of a public hearing held according to §60.23 and shall be submitted to the Administrator within 60 days after the date of adoption of the schedule but in no case later than the date prescribed for submittal of the first semiannual report required by §60.25(e).

(f) Unless otherwise specified in the applicable subpart on a case-by-case basis for particular designated facilities or classes of facilities, States may provide for the application of less stringent emissions standards or longer compliance schedules than those otherwise required by paragraph (c) of this section, provided that the State demonstrates with respect to each such facility (or class of facilities):

(1) Unreasonable cost of control resulting from plant age, location, or basic process design;

(2) Physical impossibility of installing necessary control equipment; or

(3) Other factors specific to the facility (or class of facilities) that make application of a less stringent standard or final compliance time significantly more reasonable.

(g) Nothing in this subpart shall be construed to preclude any State or political subdivision thereof from adopting or enforcing (1) emission standards more stringent than emission guidelines specified in subpart C of this part or in applicable guideline documents or (2) compliance schedules requiring final compliance at earlier times than those specified in subpart C or in applicable guideline documents.

[40 FR 53346, Nov. 17, 1975, as amended at 60 FR 65414, Dec. 19, 1995; 65 FR 76384, Dec. 6,

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2000; 70 FR 28649, May 18, 2005; 71 FR 33398, June 9, 2006; 72 FR 59204, Oct. 19, 2007; 77 FR 9447, Feb. 16, 2012]

§60.25 Emission inventories, source surveillance, reports.

(a) Each plan shall include an inventory of all designated facilities, including emission data for the designated pollutants and information related to emissions as specified in appendix D to this part. Such data shall be summarized in the plan, and emission rates of designated pollutants from designated facilities shall be correlated with applicable emission standards. As used in this subpart, "correlated" means presented in such a manner as to show the relationship between measured or estimated amounts of emissions and the amounts of such emissions allowable under applicable emission standards.

(b) Each plan shall provide for monitoring the status of compliance with applicable emission standards. Each plan shall, as a minimum, provide for:

(1) Legally enforceable procedures for requiring owners or operators of designated facilities to maintain records and periodically report to the State information on the nature and amount of emissions from such facilities, and/or such other information as may be necessary to enable the State to determine whether such facilities are in compliance with applicable portions of the plan. Submission of electronic documents shall comply with the requirements of 40 CFR part 3—(Electronic reporting).

(2) Periodic inspection and, when applicable, testing of designated facilities.

(c) Each plan shall provide that information obtained by the State under paragraph (b) of this section shall be correlated with applicable emission standards (see §60.25(a)) and made available to the general public.

(d) The provisions referred to in paragraphs (b) and (c) of this section shall be specifically identified. Copies of such provisions shall be submitted with the plan unless:

(1) They have been approved as portions of a preceding plan submitted under this subpart or as portions of an implementation plan submitted under section 110 of the Act, and

(2) The State demonstrates:

(i) That the provisions are applicable to the designated pollutant(s) for which the plan is submitted, and

(ii) That the requirements of §60.26 are met.

(e) The State shall submit reports on progress in plan enforcement to the Administrator on an annual (calendar year) basis, commencing with the first full report period after approval of a plan or after promulgation of a plan by the Administrator. Information required under this paragraph must be included in the annual report required by §51.321 of this chapter.

(f) Each progress report shall include:

(1) Enforcement actions initiated against designated facilities during the reporting period, under any emission standard or compliance schedule of the plan.

(2) Identification of the achievement of any increment of progress required by the

applicable plan during the reporting period.

(3) Identification of designated facilities that have ceased operation during the reporting period.

(4) Submission of emission inventory data as described in paragraph (a) of this section for designated facilities that were not in operation at the time of plan development but began operation during the reporting period.

(5) Submission of additional data as necessary to update the information submitted under paragraph (a) of this section or in previous progress reports.

(6) Submission of copies of technical reports on all performance testing on designated facilities conducted under paragraph (b)(2) of this section, complete with concurrently recorded process data.

[40 FR 53346, Nov. 17, 1975, as amended at 44 FR 65071, Nov. 9, 1979; 70 FR 59887, Oct. 13, 2005]

§60.26 Legal authority.

(a) Each plan shall show that the State has legal authority to carry out the plan, including authority to:

(1) Adopt emission standards and compliance schedules applicable to designated facilities.

(2) Enforce applicable laws, regulations, standards, and compliance schedules, and seek injunctive relief.

(3) Obtain information necessary to determine whether designated facilities are in compliance with applicable laws, regulations, standards, and compliance schedules, including authority to require recordkeeping and to make inspections and conduct tests of designated facilities.

(4) Require owners or operators of designated facilities to install, maintain, and use emission monitoring devices and to make periodic reports to the State on the nature and amounts of emissions from such facilities; also authority for the State to make such data available to the public as reported and as correlated with applicable emission standards.

(b) The provisions of law or regulations which the State determines provide the authorities required by this section shall be specifically identified. Copies of such laws or regulations shall be submitted with the plan unless:

(1) They have been approved as portions of a preceding plan submitted under this subpart or as portions of an implementation plan submitted under section 110 of the Act, and

(2) The State demonstrates that the laws or regulations are applicable to the designated pollutant(s) for which the plan is submitted.

(c) The plan shall show that the legal authorities specified in this section are available to the State at the time of submission of the plan. Legal authority adequate to meet the requirements of paragraphs (a)(3) and (4) of this section may be delegated to the State under section 114 of the Act.

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(d) A State governmental agency other than the State air pollution control agency may be assigned responsibility for carrying out a portion of a plan if the plan demonstrates to the Administrator's satisfaction that the State governmental agency has the legal authority necessary to carry out that portion of the plan.

(e) The State may authorize a local agency to carry out a plan, or portion thereof, within the local agency's jurisdiction if the plan demonstrates to the Administrator's satisfaction that the local agency has the legal authority necessary to implement the plan or portion thereof, and that the authorization does not relieve the State of responsibility under the Act for carrying out the plan or portion thereof.

§60.27 Actions by the Administrator.

(a) The Administrator may, whenever he determines necessary, extend the period for submission of any plan or plan revision or portion thereof.

(b) After receipt of a plan or plan revision, the Administrator will propose the plan or revision for approval or disapproval. The Administrator will, within four months after the date required for submission of a plan or plan revision, approve or disapprove such plan or revision or each portion thereof.

(c) The Administrator will, after consideration of any State hearing record, promptly prepare and publish proposed regulations setting forth a plan, or portion thereof, for a State if:

(1) The State fails to submit a plan within the time prescribed;

(2) The State fails to submit a plan revision required by §60.23(a)(2) within the time prescribed; or

(3) The Administrator disapproves the State plan or plan revision or any portion thereof, as unsatisfactory because the requirements of this subpart have not been met.

(d) The Administrator will, within six months after the date required for submission of a plan or plan revision, promulgate the regulations proposed under paragraph (c) of this section with such modifications as may be appropriate unless, prior to such promulgation, the State has adopted and submitted a plan or plan revision which the Administrator determines to be approvable.

(e)(1) Except as provided in paragraph (e)(2) of this section, regulations proposed and promulgated by the Administrator under this section will prescribe emission standards of the same stringency as the corresponding emission guideline(s) specified in the final guideline document published under §60.22(a) and will require final compliance with such standards as expeditiously as practicable but no later than the times specified in the guideline document.

(2) Upon application by the owner or operator of a designated facility to which regulations proposed and promulgated under this section will apply, the Administrator may provide for the application of less stringent emission standards or longer compliance schedules than those otherwise required by this section in accordance with the criteria specified in §60.24(f).

(f) Prior to promulgation of a plan under paragraph (d) of this section, the Administrator will provide the opportunity for at least one public hearing in either:

(1) Each State that failed to hold a public hearing as required by §60.23(c); or

(2) Washington, DC or an alternate location specified in the FEDERAL REGISTER.

[40 FR 53346, Nov. 17, 1975, as amended at 65 FR 76384, Dec. 6, 2000]

§60.28 Plan revisions by the State.

(a) Plan revisions which have the effect of delaying compliance with applicable emission standards or increments of progress or of establishing less stringent emission standards shall be submitted to the Administrator within 60 days after adoption in accordance with the procedures and requirements applicable to development and submission of the original plan.

(b) More stringent emission standards, or orders which have the effect of accelerating compliance, may be submitted to the Administrator as plan revisions in accordance with the procedures and requirements applicable to development and submission of the original plan.

(c) A revision of a plan, or any portion thereof, shall not be considered part of an applicable plan until approved by the Administrator in accordance with this subpart.

§60.29 Plan revisions by the Administrator.

After notice and opportunity for public hearing in each affected State, the Administrator may revise any provision of an applicable plan if:

(a) The provision was promulgated by the Administrator, and

(b) The plan, as revised, will be consistent with the Act and with the requirements of this subpart.

Appendix J

40 CFR 60, Subpart Cc

Emission Guidelines and Compliance Times for

Municipal Solid Waste Landfills

This document can be accessed at http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&SID=9e520e5fb02f99b601dd36ef7e3a700f&mc=true&n=pt40.7.60&r=PART&ty=HTML#sp40.7.60.c_0c

Appendix K

40 CFR 60, Subpart Cf

Emission Guidelines and Compliance Times for

Municipal Solid Waste Landfills

This document can be accessed at:

http://www.ecfr.gov/cgi-bin/text-idx?SID=3034bd85a340715b0abe47eaa456f3a9&mc=true&node=sp40.7.60.c_0f&rgn=div6

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Appendix L

40 CFR 60, Subpart WWW

Standards of Performance for Municipal Solid Waste Landfills

This document can be accessed at:

http://www.ecfr.gov/cgi-bin/text-idx?SID=3034bd85a340715b0abe47eaa456f3a9&mc=true&node=sp40.8.60.www&rgn=div6

Appendix M

40 CFR 60 Subpart XXX

Standards of Performance for Municipal Solid Waste Landfills That Commenced Construction, Reconstruction, or Modification After July 17, 2014

This document can be accessed at:

http://www.ecfr.gov/cgi-bin/text-idx?SID=3034bd85a340715b0abe47eaa456f3a9&mc=true&node=sp40.8.60.xxx&rgn=div6

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DRAFT-For Review And Discussion-DRAFT
March 10, 2017

Appendix N

Key Elements of an Acceptable Section 111(d) State Plan

As identified in Appendix J of

Municipal Solid Waste Landfills, Volume 2:

Summary of the Requirements for

Section 111(d) State Plans for Implementing

The Municipal Solid Waste Landfills

Emission Guidelines

US EPA, Office of Air Quality

Research Triangle Park, NC 27711

EPA-456R/98-009

November 1998

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Key Elements of an Acceptable Section 111(d) State Plan

States must submit to the Environmental Protection Agency (EPA) State Plans to implement and enforce the Emission Guidelines promulgated for Municipal Solid Waste (MSW) landfills pursuant to Section 111(d) of the Act. Section 111(d) requires that the state submit the State Plan not later than 9 months after EPA promulgates the Emission Guidelines. EPA promulgated the Emission Guidelines (40 CFR Part 60, Subpart Cc) on March 12, 1996, thus, the State Plans are due no later than December 12, 1996.

States must adopt their State Plans according to state procedures prior to official submittal to EPA. *[60.23 (a)]* The official procedures for adopting and submitting State Plans are codified in 40 CFR Part 60, Subpart B. EPA promulgated the original provisions on November 17, 1975, and then amended them on December 19, 1995, to incorporate changes specific to solid waste incineration. These changes, which were necessary to conform with the solid waste incineration requirements under Section 129 of the Act, are not relevant to MSW landfills. Thus, the procedures described in the original provisions for adopting and submitting State Plans still apply to MSW landfills and are reflected in the key elements given below.

The following pages include information about legal authority, emission inventories, emission standards and other emission limitations, process for review of design plans, compliance schedules, public participation, source surveillance, compliance assurance, enforcement, as required by 40 CFR Part 60, Subparts B and Cc. In addition, cross-references to relevant sections of the subparts are provided.

A. **Legal Authority** *[60.26(a)]*

1. The State Plan shall include demonstration of the state's legal authority to:

   (a) adopt emission standards (enforceable conditions) and compliance schedules applicable to the designated facilities and designated pollutants for which the State Plan is submitted

   (b) enforce applicable laws, regulations, standards, and compliance schedules, and seek injunctive relief

   (c) obtain information necessary to determine compliance

   (d) require recordkeeping, make inspections, and conduct tests

   (e) require the use of monitors and require emission reports of owners or operators

   (f) make emission data publicly available *[60.26(a)]*

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2. The state must specifically identify the provisions above and include copies of the provisions of the law establishing such legal authority unless they have been approved as a portion of a previous Section 111(d) State Plan or SIP. To facilitate its review of State Plans, EPA encourages states to submit an opinion by the state's Attorney General as part of the demonstration required above. States may use previously submitted Attorney General opinions (for example, under Title V) to the extent those documents specifically address the requirements of Section 60.26 as they apply to the designated facilities and the designated pollutants. *[60.26(b)]*

3. The legal authority shown must be in effect at time of State Plan submission. *[60.26(c)]*

4. The state may authorize another state governmental agency to carry out a portion of the State Plan, provided the state demonstrates that the state governmental agency has adequate authority. *[60.26(e)]*

5. The state may authorize a local agency to carry out a portion of the State Plan provided that the state demonstrates that the local agency has adequate legal authority to implement that portion of the State Plan and the state is not relieved of responsibility. *[60.26(e)]*

If earlier demonstrations of legal authority by the state meet the requirements of § 60.26, the state will simply need to include copies of such demonstrations in the State Plan.

B. <u>Source and Emission Inventories</u>

The State Plan must include a complete source inventory of existing MSW landfills in the state that are regulated by the Emission Guidelines. *[60.25(a)]* The inventory must include the name and location of all existing landfills, whether open or closed, that have accepted waste since November 8, 1987 or have additional capacity for future waste acceptance. Landfills with design capacities both above and below the 2.5 million Mg/yr or 2.5 million M^3/yr design capacity cutoffs must be included. New landfills (i.e., those that commenced construction, modification, or reconstruction on or after May 30, 1991) do not have to be included in the inventory.

For each landfill in the source inventory, the State Plan must include emission data for the designated pollutants (MSW landfill emissions, measured as NMOC). *[60.25(a)]* Emission data must be included where available, but emission estimates can be used if emission data is not available. States can use emission estimation procedures from AP-42, "Compilation of Air Pollutant Emission Factors" to estimate landfill NMOC emission rates for the state inventory. (AP-42 procedures should not be used to determine applicability of, or compliance with, the Emission Guidelines.)

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In addition to the initial inventory, updates are required. *[60.25(f)(5]* The updated information is required to be submitted annually in the 51.321 reports. *[60.24(e)(1)]* The emission data should be submitted to the Aerometric Information Retrieval System (AIRS) *[51.321-51.323]*

C. Emission Standards

1. The emission standards shall be no less stringent than the Emission Guidelines. *[60.24(c)]*
   However, under certain limited conditions and on a case-by-case basis, states may apply less stringent emission standards or longer compliance schedules. This reduced stringency is allowed if the state demonstrates with respect to the designated facility or class of facilities that:

   a. the cost of control would be unreasonable because of plant age, location, or basic process design;
   b. it would be physically impossible to install necessary control equipment; or
   c. there are other factors specific to the facility or class of facilities that make application of a less stringent standard or final compliance time significantly more reasonable. *[60.24f]*

NOTE: Nothing in the Clean Air Act nor the CFR restricts the state from having standards and schedules more stringent than the Emission Guidelines. *[60.24(g)]*

2. The State Plan shall include the specific emission limitations, preferably cross-referenced to the specific Emission Guideline requirements. *[60.24(a)]*

3. Test methods and procedures for determining compliance shall be specified. *[60.24(b)2]*

4. If the methods and procedures are not identical to those in Sections 60.34c, 60.755, and 60.756, the state must demonstrate equivalence or request EPA approval of acceptable alternatives per current EPA method review procedures. *[60.24(b)(2)]*

5. If emission standards are adopted by local agencies or other state agencies, they must also be included in the State Plan and if not identical to the Emission Guidelines, then the state must show that they are at least as protective as the emission guidelines except as specified in "1," above. *[60.24(a)]*

D. Process for Review of Design Plans

Subpart Cc requires site-specific design plans for the required gas collection and control systems. The State Plan must also include a process for state review and approval of design

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plans. These landfill State Plan requirements are unique to landfills because they are required by Subpart Cc, rather than Subpart B.

The design plan must be prepared by a professional engineer, must meet the design criteria in Section 60.752(b)(2)(ii) of Subpart WWW, and must be submitted to the state for approval. For further information about the design criteria and for examples of alternative designs, refer to "Municipal Solid Waste Landfills, Volume 1: Summary of the Requirements for the New Source Performance Standards and Emission Guidelines for Municipal Solid Waste Landfills" (EPA-453/R-96-004).

1. For approval, a State Plan shall include the installation of a collection and control system meeting the conditions provided in Section 60.752(b)(2)(ii) of Subpart Cc at each MSW landfill meeting the conditions of Section 60.33c(a). [*60.33c(b)*]

2. The State Plan shall include a process for state review and approval of the site-specific design plans for the gas collection and control system(s). [*60.33c(b)*] The description of the process in the State Plan could include information on review responsibilities, schedules, and notification procedures such as communication of reasons for disapproval.

E. <u>Compliance Schedules</u>

1. Compliance schedules must match the Cc and B specifications except as specified above in "1" under Emission Standards. *[Subpart Cc,60.36c]*

2. For compliance schedules for MSW landfills extending more than 12 months beyond the date required for submittal of the plan (December 12, 1996), the compliance schedule must include legally enforceable increments of progress towards compliance for that MSW landfill. Each increment of progress in Section 60.21(h) of Subpart B must have a compliance date and must be included as an enforceable date in the State Plan. The State Plan may include such additional increments of progress as may be necessary to permit close and effective supervision of progress towards final compliance. *[60.24(e)(1), & 60.21(h)]*

   The <u>minimum</u> increments of progress are as follows:

   (a) Submittal of Final Control Plan (Design Plan); *[60.21(h)(1)]* For landfills, the design must include the information specified in § 60.752(b)(2) of Subpart WWW.

   (b) Awarding of contracts for controls systems or process modifications or orders for purchase of components; *[60.21(h)(2)]*

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(c) Initiation of on-site construction or installation of the air pollution control device(s) or process changes; *[60.21(h)(3)]*

(d) Completion of on-site construction or installation of control equipment or process changes; *[60.21(h)(4)]*

(e) Final compliance. *[60.21(h)(5)]*

These increments of progress can be set as calendar dates or floating dates tied to the effective date of EPA's approval of the State plan for MSW landfills or the date of the first Annual Emission Rate Report that shows that NMOC emissions equal to or exceeding 50 Mg/yr. For example, the date for submitting a final control plan (design plan) could be set as 1 year after the date of the first Annual Emission Rate Report showing that the NMOC emission rate is 50 Mg/yr or greater. This timing is consistent with Subparts Cc and WWW.

3. The State Plan may include one set of increments with compliance dates applicable to all MSW landfills, or the State Plan may vary the compliance dates to address specific issues relevant to individual landfills. However, the enforceable increments of progress must be arranged chronologically and the compliance dates must be set to ensure full compliance with the applicable requirements *as expeditiously as practicable*. *[60.24(c)]* For example, a State Plan that requires an MSW landfill to "submit a final control plan (design plan) no later than 24 months after the effective date of a State emission standard" will be closely examined to determine whether the state is requiring the MSW landfill to comply as expeditiously as practicable.

F. Public Participation

Public participation, under the Clean Air Act, is an important right and responsibility of citizens in the state process of developing, adopting, and implementing the required Section 111(d) State Plans. Under 40 CFR Part 60, Subpart B, the minimum requirements for the state to conduct public hearings on the adoption of State Plans and any revisions thereof are as follows:

1. Reasonable notice of one or more public hearing(s) at least 30 days prior to the hearing(s). *[60.23(d)]*

2. One or more public hearing(s) on the State Plan (or revisions) conducted in location(s) within the state. *[60.23(c)(1)]*

3. Date, time and place of hearing(s) prominently advertised in each region affected. *[60.23(d)(1)]* "Region" is defined as "air quality control region". *[60.21(i)]*

4. Availability of draft State Plan for public inspection in at least one location in each region to which it will apply. *[60.23(d)(2)]*

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5. Notice of hearing provided to: (a) EPA Regional Administrator, (b) local affected agencies, and (c) other states affected. *[60.23(d)(3),(4),&(5)]*

6. Retention of hearing records (for example, list of commenters and their affiliation and summary of each presentation and comments submitted and the state's responses to those comments) for at least 2 years. *[60.23(e) and (f)]*

7. Certification that public participation was conducted in accordance with Subpart B and state procedures. *[60.23(f)]* Upon written application by the state agency, EPA may (expected only for limited special cases) approve different procedures provided that they ensure adequate public participation. *[60.23(g)]*

No hearing is required on a state or local emission standard in effect prior to March 12, 1996, the effective date of Subpart Cc, if it was adopted after a public hearing and is at least as stringent as the Emission Guidelines. *[60.23(c)(3)]*

Similarly, no public hearing is required for any change to an increment of progress unless the change is likely to cause the facility to be unable to comply with the final compliance date. *[60.23(c)(2)]*

G. Source Surveillance, Compliance Assurance & Enforcement

The State Plan must provide for monitoring the status of compliance. As a minimum, the State Plan shall include:

1. Provisions for legally enforceable procedures to:

   (a) require recordkeeping on nature and amount of emissions and reports to the state. *[60.25(b)(1)]*

   (b) require any additional information to judge compliance. *[60.25(b)(1)]*

2. Provisions for periodic inspection and testing, if necessary. *[60.25(b)(2)]*

3. Provisions for emission data and other compliance monitoring information to be correlated with applicable emission standards and be made available to the public. "Correlated" means showing the relationship between the measured or estimated amounts of emissions and the amounts of such emissions allowable. For example, the emissions should be in the same units and averaging times. This would include the annual emission rate reports, in Mg/yr, that must be submitted by uncontrolled landfills. The reported annual emission rate would be compared to

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the 50 Mg/yr threshold to determine whether controls must be installed.[1] *[60.25(a) and (c)]*

4. MSW landfill requirements for Testing, Monitoring, Recordkeeping, and Reporting that are identical to those specified in 60.34c, 60.35c *[Subpart Cc]*, and 60.755, 60.756, 60.757, 60.758. *[Subpart WWW, referred to by Subpart Cc]*

5. Specific identification of the provisions in 1 through 4 above. Copies of such provisions should be included unless they have been approved as portions of a preceding Section 111(d) State Plan or State Implementation Plan (SIP) and the state demonstrates that the provisions are applicable and the requirements of 60.26 (legal authorities) are met. *[60.25(d)]*

6. Commitment to submit reports on progress in plan enforcement to the EPA Regional Administrator on an annual basis and include it in the reports required by 51.321. *[60.25(e) and (f)]* Each progress report shall include: enforcement actions, achievement of increments of progress, identification of sources that have ceased operation, emission inventory information for sources that were not in operation at the time of plan development, updated emission inventory and compliance information, and copies of technical reports on all performance testing, including concurrent process data. *[60.25(f)(1) through 60.25(f)(6)]*

Note: Some states and regions have developed more specific or tailored reporting and recordkeeping procedures via Memoranda of Agreements, Program Specific Guidance for Section 105 Grants, and the Timely and Appropriateness Guidance that should also be followed. For example, some regions prefer that the state retain the performance test report until the region needs to review it as part of a compliance determination or other action.

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[1]For landfills that require control, the emission standards are expressed in terms of design criteria and operational requirements for the gas collection system and a percent reduction for the control device, instead of emission rate limits. Therefore, the Subpart B requirement to "correlate" the annual emission inventory information (in Mg/yr, discussed in Section 3.4) with the MSW landfill emission standards is not helpful for controlled MSW landfills. Thus, the more appropriate correlation is to the NMOC threshold in Mg/yr. The performance testing, monitoring, and recordkeeping procedures in the Emission Guidelines are appropriate for determining compliance with the percent reduction limit and collection system requirements.

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Appendix O:

A Record Of Public Hearing(s) On The MCAQD Plan.

To: BECKHAM, LISA[BECKHAM.LISA@EPA.GOV]
Cc: Matthew Ivers[Ivers.Matthew@azdeq.gov]
From: Ryan C. Templeton
Sent: Thur 2/23/2017 3:59:38 PM
Subject: RE: Municipal Solid Waste Landfill 111(d) Plan
AZ MSW Landfill Timeline.pptx
State Plan for Implementing the Municipal Solid Waste Landfill Emission Guidelines for Arizona.docx

Hey Lisa,

Matt and I are available Monday, February 27th 1-2pm PT (2-3 AZ time). Our conference line information is provided below. The topics we would like to discuss are:

1. The role of Subparts Cc and WWW in relation to Subparts Cf and XXX (see Matt's email from 2/16)

2. Adequacy of Arizona's MSWLF emission inventory (see my email from 2/16)

3. ADEQ's proposed timeline for submittal

Please let me know if there are any other items you would like to discuss. I have attached a couple of documents for reference for items 2 and 3. Please note, however, that while we have requested an exemption from Arizona's rule moratorium for the revision of our MSWLF performance standards rules, we have not received an exemption from the governor's office. Therefore, the timeline is proposed. Pending the governor office's decision, we will pursue the tasks on the timeline as proposed; however, if the exemption is not granted, ADEQ will not pursue rule revision or plan submittal. We can discuss this further during our meeting on Monday.

We look forward to talking with you and Andy. Thanks.

Ryan Templeton

Environmental Engineer Specialist

Air Quality Improvement Planning Section

Air Quality Division, Arizona Department of Environmental Quality

1110 W. Washington Street

Phoenix, AZ 85007

(602) 771-4230

rct@azdeq.gov

From: BECKHAM, LISA [mailto:BECKHAM.LISA@EPA.GOV]
Sent: Wednesday, February 22, 2017 3:57 PM
To: Ryan C. Templeton <Templeton.Ryan@azdeq.gov>
Cc: Matthew Ivers <Ivers.Matthew@azdeq.gov>
Subject: RE: Municipal Solid Waste Landfill 111(d) Plan

Hi Ryan,

Sorry that I'm just getting back to you towards the end of the day. Andy and I agree setting up a call soon is a good idea. How about next week? Because of the time difference for Andy finding a slot can be a bit tricky. But here are some times that work for us next week:

Monday, February 27

10-11amPT

11am-12pm PT

1-2pm PT

Tuesday, February 28

8:30-9:30am PT

10-11am PT

Wednesday, March 1

8-9am PT

1-2pm PT

Thursday, March 2

8-9am PT

10-11am PT

1-2pm PT

Lisa Beckham

Environmental Engineer

Air Permits Office

EPA Region 9

(415) 972-3811

From: Ryan C. Templeton [mailto:Templeton.Ryan@azdeq.gov]
Sent: Wednesday, February 22, 2017 9:46 AM
To: BECKHAM, LISA <BECKHAM.LISA@EPA.GOV>
Cc: Matthew Ivers <Ivers.Matthew@azdeq.gov>
Subject: RE: Municipal Solid Waste Landfill 111(d) Plan

Hey Lisa,

I wanted to follow up with you to see if you have had a chance to touch base with Andy. I think it may be beneficial for us to set up a call at some point soon. I know Matt had a question regarding the rule changes, I had asked about our emission inventory adequacy, and we would also like to discuss our remaining timeline for project completion. Feel free to give me a call to set something up or we can work through email to find a time to schedule a call. Thanks.

Ryan Templeton

Environmental Engineer Specialist

Air Quality Improvement Planning Section

Air Quality Division, Arizona Department of Environmental Quality

1110 W. Washington Street

Phoenix, AZ 85007

(602) 771-4230

rct@azdeq.gov

From: Ryan C. Templeton
Sent: Thursday, February 16, 2017 2:57 PM
To: 'BECKHAM, LISA' <BECKHAM.LISA@EPA.GOV>
Cc: Matthew Ivers <Ivers.Matthew@azdeq.gov>
Subject: RE: Municipal Solid Waste Landfill 111(d) Plan

That sounds great Lisa. Let me know what works best for you and we can follow up in a meeting, if needed. Thanks.

Ryan Templeton

Environmental Engineer Specialist

Air Quality Improvement Planning Section

Air Quality Division, Arizona Department of Environmental Quality

1110 W. Washington Street

Phoenix, AZ 85007

(602) 771-4230

rct@azdeq.gov

From: BECKHAM, LISA [mailto:BECKHAM.LISA@EPA.GOV]
Sent: Thursday, February 16, 2017 2:50 PM
To: Ryan C. Templeton <Templeton.Ryan@azdeq.gov>
Cc: Matthew Ivers <Ivers.Matthew@azdeq.gov>
Subject: RE: Municipal Solid Waste Landfill 111(d) Plan

Hi Ryan,

Thanks for the email and detailed information. I look forward to working with you as well. I'll talk to Andy and hopefully we can get back to you soon – or perhaps setup a call to discuss in more detail.

Lisa Beckham

Environmental Engineer

Air Permits Office

EPA Region 9

(415) 972-3811

From: Ryan C. Templeton [mailto:Templeton.Ryan@azdeq.gov]
Sent: Thursday, February 16, 2017 1:41 PM
To: BECKHAM, LISA <BECKHAM.LISA@EPA.GOV>
Cc: Matthew Ivers <Ivers.Matthew@azdeq.gov>
Subject: Municipal Solid Waste Landfill 111(d) Plan

Hey Lisa,

I am currently drafting the Arizona Department of Environmental Quality's 111(d) plan for municipal solid waste landfills. I wanted to introduce myself to you and also get your feedback on an issue that I am running into. Up until this point, I have been directing questions to Andrew Sheppard; however, I will try to touch base with you moving forward to make sure you are in the loop on the plan development and our State plan is meeting your expectations and the requirements for a 111(d) plan. I look forward to working with you.

I am currently drafting the State plan. One of the key elements that I am running into issues with and is dominating my efforts is the §60.25(a) requirement for the inventory of designated facilities and their related emissions. I have utilized the following sources to refine our list:

- ADEQ Air Quality Division (AQD) permits and records
- ADEQ Waste Program Division (WPD) permits and records
- EPA 2014 National Emission Inventory
- EPA530-R-96-006, List of Municipal Solid Waste Landfills, June 1996
- EPA, 2016 Municipal Solid Waste New Source Performance Standards (NSPS) and Emission Guidelines (EG) Data Files (https://www.epa.gov/stationary-sources-air-pollution/2016-municipal-solid-waste-new-source-performance-standards-nsps)
- Surveys distributed to known MSW landfills owners and operators requesting operational data

I have developed an existing source inventory that currently includes 34 facilities (these include

facilities in Arizona outside of Maricopa, Pima, and Pinal Counties, since these counties have other planning authorities), but have been unable to obtain all of the information necessary to estimate emissions for all of these facilities. While our work is still in draft form, I have currently been able to gather enough information to model emissions for 15 of the 34 facilities. Given the effort we have put into developing this list, we feel that we have met the requirements of what is "reasonable and practical" for developing the emissions estimates for this plan. Additionally, for all facilities that have a design capacity > 2.5 million Mg or m^3, we have been able to estimate NMOC emissions. While we will continue to try to further develop this list, I just want to make sure we won't have an approvability issues for an incomplete list of emission estimates from identified facilities.

I appreciate your help and am more than willing to have a call if you would like. Thank you and I look forward to hearing from you soon. Sorry for the long email.

Ryan Templeton

Environmental Engineer Specialist

Air Quality Improvement Planning Section

Air Quality Division, Arizona Department of Environmental Quality

1110 W. Washington Street

Phoenix, AZ 85007

(602) 771-4230

rct@azdeq.gov

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To: BECKHAM, LISA[BECKHAM.LISA@EPA.GOV]
From: Buss, Jeffrey
Sent: Tue 12/12/2017 7:32:26 PM
Subject: CARB MSW LF response letter.docx
CARB MSW LF response letter.docx
2017-10-23 CARB Ltr to US EPA re. CA State Plan Landfill Emission Guidelines.pdf
2017-12-04 FINAL CARB Ltr to USEPA - State Plan.pdf

Hi Lisa,

Here's a draft response to CARB's letter about the landfill emission guidelines. Can you take a look and please add/revise as you think appropriate. I've also attached the CARB correspondence.

Thanks!

Jeff

Print on EPA Letterhead

Stamp Date

Mr. Richard W. Corey
Executive Officer
California Air Resources Board
1001 I Street
P.O. Box 2815
Sacramento, California 95812

Dear Mr. Corey:

I am writing in response to your December 4, 2017 letter concerning the Landfill Emission Guidelines recently promulgated by the EPA and located at 40 CFR Part 60, Subpart Cf. We have received the California Air Resources Board's (CARB) state plan to implement the Landfill Emission Guidelines. With respect to your concern about the EPA issuing a Federal Implementation Plan (FIP), please be advised that we are currently working to align our Landfill Emission Guidelines with the risk and technology review (RTR) for this source category. EPA has a court order to complete the RTR by March 13, 2020 and the reconsideration will be finished on the same timeline. Aligning these rules will provide clarity for the regulated entities, pose less burden and add additional regulatory certainty to landfills that are covered by both regulations. While the EPA continues to consider whether additional steps could be appropriate during our reconsideration, we do not plan to prioritize the review of state plans to implement the Landfill Emission Guidelines nor are we working to issue a FIP for states that failed to submit an adequate state plan.

Thank you for your letter and I hope this message allays your concerns about a FIP. We appreciate CARB's efforts to implement the federal NSPS program and hope to continue working with you to reduce emissions in California. If you have any questions about this letter, please call me at (415) 972-3851 or have your staff contact Jeffrey Buss at (415) 947-4152, or Lisa Beckham at (415) 972-3811.

Sincerely,

Matthew J. Lakin
Acting Director, Air Division

cc: Shannon Martin Dilley, Counsel
CARB Legal Office

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To: BECKHAM, LISA[BECKHAM.LISA@EPA.GOV]; Buss, Jeffrey[Buss.Jeffrey@epa.gov]
From: Kelly, Shaheerah
Sent: Tue 2/27/2018 7:51:48 PM
Subject: RE: NSPS Subpart XXX

Hi Lisa and Jeff.

Thanks for the update on this. Can you send me a copy of the letter? It may be of interest to some of the regional contacts in the CAA Sec 129 Workgroup.

Thanks.

****
Shaheerah Kelly

Permits Office, Air Division (AIR-3)

U.S. Environmental Protection Agency, Region 9
San Francisco, CA 94105
Phone: 415-947-4156
Fax: 415-947-3579
Email: kelly.shaheerah@epa.gov

From: BECKHAM, LISA [mailto:BECKHAM.LISA@EPA.GOV]
Sent: Monday, February 26, 2018 1:50 PM
To: Air Permit Exchange <permit@lists.epa.gov>
Subject: RE:[permit] NSPS Subpart XXX

I suggest the recent brief we filed as the best piece of guidance – I've copy and pasted it below. Also as an FYI, we sent a letter to California today about their State plan for existing landfills. I pasted it below as well.

The brief basically says the stay had no effect.

*****Brief*****

Petitioners Natural Resources Defense Council, Clean Air Council, Clean Wisconsin, and Conservation Law Foundation (collectively, Petitioners), and Respondents E. Scott Pruitt and the United States Environmental Protection Agency (together, EPA) agree to dismiss this case pursuant to Federal Rule of Appellate Procedure 42(b). Petitioners and EPA inform the Court as follows:

This case involves a petition for review of the EPA final action published on May 31, 2017, and titled "Stay of Standards of Performance for Municipal Solid Waste Landfills and Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills," 82 Fed. Reg. 24,878 (May 31, 2017) (hereinafter "Stay Decision").

In EPA's response brief dated January 22, 2018, ECF No. 1714147, the Agency made the following representations:

1. "The Stay Decision only affects deadlines in the 2016 regulations that would have otherwise applied during the 90 days in which the stay was in effect," that is, from May 31, 2017, until August 29, 2017. EPA Br. at 2.
2. With regard to new landfills: "EPA is not aware of any new landfills affected by the Stay Decision" (that is, landfills with "deadlines [that] fell within the period of the stay") and "Petitioners have not pointed to any." EPA Br. at 37-42.
3. With regard to existing landfills: "the Stay Decision by its express terms began on May 31, not May 30, and therefore did not alter the May 30" deadline for states to submit implementation plans for existing landfills "and EPA did not purport to retroactively extend that date." EPA Br. at 35. Additionally, "the Stay Decision did not affect any subsequent deadlines for existing landfills." EPA Br. at 36.
4. With regard to EPA's obligations: "EPA had four months, until September 31, 2017, to approve or disapprove any state plans that were timely submitted by May 30, and six months, until November 30, 2017, to promulgate a federal plan for states that did not timely submit state plans." EPA Br. at 36. These deadlines "have come and gone, and the Stay Decision had no effect on them." *Id.* "EPA has neither approved nor disapproved the state plans that were timely submitted, nor promulgated any federal plans." EPA Br. at 37.

In light of these representations, Petitioners have elected to voluntarily dismiss this petition for review. Petitioners and EPA hereby agree to the voluntary dismissal of the above-captioned petition for review pursuant to Federal Rule of Appellate Procedure 42(b). Each party shall bear its own costs.

****Letter to California****

Dear Mr. Corey:

I am writing in response to your December 4, 2017 letter concerning the Landfill Emission Guidelines

(EG) recently promulgated by the Environmental Protection Agency (EPA) and located at 40 CFR Part

60, Subpart Cf. We have received the California Air Resources Board's (CARB) May 30, 2017 state plan

to implement the EG. As you may know, in May 2017 the EPA announced it is reconsidering several

issues in the 2016 final rules for Municipal Solid Waste Landfills New Source Performance Standards

(NSPS) and EG. On May 31, 2017, the EPA issued a 90-day stay on the 2016 EG. The 90-stay expired

on August 29, 2017; thus, the 2016 rules are currently in effect. The EPA still intends to complete the

reconsideration process granted by the Administrator.

Since the Agency is reconsidering various issues regarding the landfill regulations, at this time we do not

plan to prioritize the review of submitted state plans nor are we working to issue a Federal Plan for states

that failed to submit a state plan. Please also note that under 40 CER § 60.27(c), the requirement for the

EPA to develop a Federal Plan has not been triggered for the State of California since CARB has

submitted a timely plan. Additionally, we are currently working to align our reconsideration of certain

portions of the EG with the risk and technology review (RTR) for this source category. The EPA has a

court order to complete the RTR by March 13, 2020 and the reconsideration will be finished on the same

timeline.

Thank you for your letter and I hope this message allays your concerns about a Federal Plan. If you have

any questions about this letter, please call me at (415) 972-3851 or Amy Zimpfer at (415) 947-4146 or

have your staff contact Jeffrey Buss at (415) 947-4152 or Lisa Beckham at (415) 972-3811.

Sincerely,

Matthew J. Lakin

Acting Director, Air Division

From: Law, Donald [mailto:Law.Donald@epa.gov]
Sent: Monday, February 26, 2018 1:16 PM
To: Air Permit Exchange <permit@lists.epa.gov>
Subject: [permit] NSPS Subpart XXX

The Region has been receiving several inquiries on the NSPS subpart XXX stay and how to work through the applicability with the stay lifted. Mainly the concern is the clarification on which rules apply (WWW or XXX). Has there been any other guidance put out on these two rules?

You are currently subscribed to permit as: Beckham.Lisa@epa.gov .
To unsubscribe send a blank email to: leave-1694406-2127996.1c2be31c9b65bc637dc9005788795363@lists.epa.gov .

You are currently subscribed to permit as: kelly.shaheerah@epa.gov .
To unsubscribe send a blank email to: leave-1694416-2128132.a17d1a157e81f3576cfc552658f33725@lists.epa.gov .

To: Zenick, Elliott[Zenick.Elliott@epa.gov]; Dunkins, Robin[Dunkins.Robin@epa.gov]
Cc: Lo, Doris[Lo.Doris@epa.gov]; Buss, Jeffrey[Buss.Jeffrey@epa.gov]; BECKHAM, LISA[BECKHAM.LISA@EPA.GOV]; Spiegelman, Nina[Spiegelman.Nina@epa.gov]; Rios, Gerardo[Rios.Gerardo@epa.gov]; Machol, Ben[Machol.Ben@epa.gov]; Zimpfer, Amy[Zimpfer.Amy@epa.gov]
From: Zimpfer, Amy
Sent: Mon 2/26/2018 6:33:49 PM
Subject: RE: CARB MSW LF response letter ORC 12-14-17 lb.docx
02_26_2018_CARB_CoreyLtr.pdf

Hello All,

FYI, Acting Director Matt Lakin signed the attached response letter today. We will share with CARB.

Thank you for your help with this.
Amy

From: Zenick, Elliott
Sent: Monday, February 05, 2018 10:52 AM
To: Zimpfer, Amy <Zimpfer.Amy@epa.gov>; Dunkins, Robin <Dunkins.Robin@epa.gov>
Cc: Lo, Doris <Lo.Doris@epa.gov>; Buss, Jeffrey <Buss.Jeffrey@epa.gov>; BECKHAM, LISA <BECKHAM.LISA@EPA.GOV>; Spiegelman, Nina <Spiegelman.Nina@epa.gov>; Rios, Gerardo <Rios.Gerardo@epa.gov>; Machol, Ben <Machol.Ben@epa.gov>
Subject: RE: CARB MSW LF response letter ORC 12-14-17 lb.docx

Amy, sorry, thought I told you last week we were ok on my end.

From: Zimpfer, Amy
Sent: Friday, February 02, 2018 7:18 PM
To: Dunkins, Robin <Dunkins.Robin@epa.gov>
Cc: Lo, Doris <Lo.Doris@epa.gov>; Buss, Jeffrey <Buss.Jeffrey@epa.gov>; BECKHAM, LISA <BECKHAM.LISA@EPA.GOV>; Spiegelman, Nina <Spiegelman.Nina@epa.gov>; Zenick, Elliott <Zenick.Elliott@epa.gov>; Zimpfer, Amy <Zimpfer.Amy@epa.gov>; Rios, Gerardo <Rios.Gerardo@epa.gov>; Machol, Ben <Machol.Ben@epa.gov>
Subject: RE: CARB MSW LF response letter ORC 12-14-17 lb.docx

Hi Robin and Elliott,

Given the recent dismissal (attached), I am hoping you can review our draft response letter from December (incoming letters and draft response also attached) and make any appropriate changes and additions. It would be good to get this out in February.

Thanks,

Amy

From: Zimpfer, Amy
Sent: Friday, December 15, 2017 3:02 PM
To: Dunkins, Robin <Dunkins.Robin@epa.gov>
Cc: Lo, Doris <Lo.Doris@epa.gov>; Buss, Jeffrey <Buss.Jeffrey@epa.gov>; BECKHAM, LISA <BECKHAM.LISA@EPA.GOV>; Spiegelman, Nina <Spiegelman.Nina@epa.gov>
Subject: FW: CARB MSW LF response letter ORC 12-14-17 lb.docx

Hi Robin,

Its nice to be working on an issue together again. It has been a while.

Jeff Buss and Andy Sheppard have been working on a draft response. Our RA wants this out soon. Could you please review the attached letter and provide your comments and/or concurrence? Also, see below; Elliot Z. has reviewed the letter and is generally ok with it, but he is giving it some more thought given the status of litigation. We are hoping to get this out early next week.

Please feel free to call me and/or let me know if you have any questions/comments.

Best Regards and thanks in advance,

Amy

On Dec 15, 2017, at 9:43 AM, Buss, Jeffrey <Buss.Jeffrey@epa.gov> wrote:

From: Zenick, Elliott
Sent: Friday, December 15, 2017 5:28 AM
To: Sheppard, Andrew <sheppard.andrew@epa.gov>
Cc: Vetter, Rick <Vetter.Rick@epa.gov>; Dunkins, Robin <Dunkins.Robin@epa.gov>; Buss, Jeffrey <Buss.Jeffrey@epa.gov>
Subject: Re: CARB MSW LF response letter ORC 12-14-17 lb.docx

I think that the letter is probably fine but want to give it some thought in the context of the litigation. Also given the litigation I want to at least let our front office know about it.

Sent from my iPhone

On Dec 15, 2017, at 8:25 AM, Sheppard, Andrew <sheppard.andrew@epa.gov> wrote:

Elliott and Rick,

Attached is an updated draft response from Region 9. Please let us know if you are fine with sending this out. Region 9 would like to get a response out today if at all possible.

Thanks,

Andy Sheppard

U.S. EPA, Sector Policies and Programs Division, OAQPS

Natural Resources Group

(919)541-4161

From: Buss, Jeffrey
Sent: Thursday, December 14, 2017 2:34 PM

To: Sheppard, Andrew <sheppard.andrew@epa.gov>
Subject: CARB MSW LF response letter ORC 12-14-17 lb.docx

Hello Andy, please find attached a revised version of the letter we've drafted to reply to CARB.

Best,

Jeffrey Buss

US EPA Region 9

415-947-4152

<CARB MSW LF response letter ORC 12-14-17 lb.docx>

Draft Technical Guidance for Implementing Emission Guidelines for Municipal Solid Waste Landfills 40 CFR Part 60 Subpart Cf

A. Purpose

The purpose of this rule is to reduce landfill gas (LFG) emissions, which contain both non-methane organic compounds (NMOC) and methane from municipal solid waste (MSW) landfills by implementing the provisions of Title 40 Code of Federal Regulations (CFR) Part 60, Subpart Cf—Emission Guidelines and Compliance Times for MSW Landfills, Final Rule, as promulgated on August 29, 2016 (81 Fed.Reg. 59275 [Aug. 29, 2016]) and the Federal Clean Air Act (CAA), 42 U.S.C. § 7401, et seq.[1]

B. Applicability

This rule applies to all existing MSW landfills meeting the following conditions:

(1) Construction, reconstruction, or modification was commenced on or before July 17, 2014;[2] and

(2) The MSW landfill has accepted waste after November 8, 1987 or has additional design capacity available for future waste deposition.

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C. Definitions

Terms used in this rule have the same meaning as in 40 CFR § 60.761. Terms used but not defined in this rule have the meaning given them in the CAA and 40 CFR, Part 60, Subparts A and B (Definitions), except:

(1) *Administrator,* for the purposes of this rule, means the Air Pollution Control Officer of the **[insert name of APCD/AQMD here],** pursuant to 40 CFR § 60.41f, except that the APCO shall not be empowered to approve:

(a) Alternative methods to determine the NMOC concentration or a site-specific methane generation rate constant (k) (40 CFR § 60.760 (b)).

[1] 40 CFR Part 60, Subpart B (Adoption and Submittal of State Plans for Designated Facilities) requires California Air Resources Board and Air Pollution Control Districts to submit a State Plan to the United States Environmental Protection Agency (U.S. EPA) Regional Administrator by May 30, 2017.
[2] This Technical Guidance references 40 CFR Part 60, Subpart XXX as many of the requirements of Subpart XXX are the same as the requirements under 40 CFR Part 60, Subpart Cf.

(2) *Closed landfill subcategory* means a closed landfill that has submitted a closure report as specified in 40 CFR § 60.767(e) on or before September 27, 2017 (40 CFR § 60.41f).

(3) *Design plan* means the site-specific design plan for the gas collection and control system submitted under section F(3) of this rule.

(4) *Protectorate* means American Samoa, the Commonwealth of Puerto Rico, the District of Columbia, Guam, the Northern Mariana Islands, and the Virgin Islands (40 CFR § 60.41f).[3]

(5) *State* means any of the 50 United States and the protectorates of the United States (40 CFR § 60.41f).

(6) *State Plan* means a plan submitted pursuant to section 111(d) of the CAA and subpart B of this part that implements and enforces subpart (40 CFR § 60.31 to 60.41f)).

D. Exemptions

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(1) Any MSW landfill that is subject to the requirements of 40 CFR Part 60, Subpart XXX – Standards of Performance for MSW Landfills that Commenced Construction, Reconstruction, or Modification After July 17, 2014 (40 CFR § 60.760 New Source Performance Standards) is exempt from the requirements of this rule (40 CFR § 60.31f(a)).

(2) Physical or operational changes made to an existing MSW landfill solely to comply with this rule are not considered a modification or reconstruction and would not subject an existing MSW landfill to the requirements of a standard of performance for new MSW landfills (40 CFR § 60.31f(b)). If the design capacity increase is the result of a change in operating practices, density, or some other change that is not a modification as defined in this rule, then the landfill remains subject to this rule (40 CFR § 60.33f(d)(1)).

E. Effective Date

The effective date of this rule is the date the United States Environmental Protection

[3] Definitions 4 through 6 are identified in 40 CFR Part 60, Subpart Cf.

Agency (U.S. EPA) promulgates approval of the District's State Plan, through publication in the Federal Register, to implement the requirements of 40 CFR Part 60, Subpart Cf.

F. Standards

(1) *Installation of Gas Collection and Control System.* Each owner or operator of a MSW landfill having a design capacity equal to or greater than 2.5 million megagrams by mass and 2.5 million cubic meters by volume must either:

(a) Install a collection and control system that meets the criteria provided in 40 CFR § 60.762, or

(b) Calculate an initial NMOC emission rate for the landfill using the procedures specified in 40 CFR § 60.764, except that:

(i) *Closed Landfill Subcategory.* Pursuant to 60 CFR §§ 60.33f(e)(1)(C) and (e)(3), for the closed landfill subcategory, if the most *recent* calculated NMOC emission rate is equal to or greater than 50 megagrams per year or if the calculated NMOC emission rate is equal to or greater than 50 megagrams per year using Tier 1, 2, or 3 procedures, the owner or operator must either:

(A) Submit a gas collection and control system design plan as specified in 40 CFR § 60.38f(d), except for exemptions allowed under 40 CFR § 60.31f(e)(3), and install a collection and control system as provided in 40 CFR § 60.762;

(B) Calculate NMOC emissions using the next higher tier in 40 CFR § 60.764; or

(C) Conduct a surface emission monitoring demonstration using the procedures specified in 40 CFR § 60.764(a)(6), as applicable.

(2) *Gas Collection and Control System Design Plan*. The owner or operator of each MSW landfill subject to the provisions of 40 CFR § 60.762(b)(2) must submit a gas collection and control system design plan in accordance with the provisions of 40 CFR § 60.767 (c)(1) through (7) that meets the control requirements of 40 CFR § 60.762.

(a) The collection and control system design plan must either conform

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with specifications for active collection systems in 40 CFR § 60.769 or include a demonstration to the Air Pollution Control Officer's satisfaction of the sufficiency of the alternative provisions to 40 CFR § 60.769.

(3) *Title V Operating Permits*. For purposes of obtaining an operating permit under Title V of the CAA, each owner or operator of a MSW landfill must comply with the provisions in 40 CFR § 60.762(c), except that:

(a) Each owner or operator of a MSW landfill subject to this rule with a design capacity greater than or equal to 2.5 million megagrams and 2.5 million cubic meters that is not otherwise subject to either 40 CFR, Parts 70 or 71, becomes subject to the requirements 40 CFR § 70.5(a)(1)(i) or §71.5(a)(1)(i) of this chapter 90 days after the effective date of the U.S. EPA approval, even if the design capacity report is submitted earlier.

(b) If a MSW landfill is closed, the owner or operator is no longer subject to the requirement to maintain an operating permit under 40 CFR Parts 70 or 71 if the landfill is not otherwise subject to the requirements of either Parts 70 or 71 and if either of the following conditions are met:

(i) The landfill was never subject to the requirement to install and operate a gas collection and control system under this rule; or

(ii) The landfill meets the conditions for control system removal as specified in section F(9) of this rule.

(4) *Passive Gas Collection Systems and Non-Enclosed Flares*. 40 CFR § 60.762 (b)(2)(ii)(D) and (b)(2)(iii)(A), concerning the use of passive collection systems and non-enclosed flares do not apply to MSW landfills subject to this rule.

(5) *Operational Standards and Procedures*. Each MSW landfill required to install a gas collection and control system under this section shall meet the operational standards in 40 CFR § 60.763.

(6) *Test Methods and Procedures.* Each MSW landfill required to install a gas collection and control system under this section shall meet the test methods and procedures in 40 CFR § 60.764.

(7) *Compliance Provisions*. Each MSW landfill required to install a gas collection and control system under this section shall meet the compliance provisions in 40 CFR § 60.765.

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(8) *Monitoring Provisions*. Each MSW landfill required to install a gas collection and control system under this section shall meet the monitoring provisions in 40 CFR § 60.766

(9) *Removal Criteria*. The gas collection and control system at a closed MSW landfill may be capped, removed, or decommissioned provided the criteria in 40 CFR § 60.762(b)(2)(v) are met, except that:

(a) For a MSW landfill in the closed landfill subcategory, the calculated NMOC emission rate at the landfill must be less than 50 megagrams per year on three successive test dates following the procedures in 40 CFR § 60.764(b). The test dates must be no less than 90 days apart, and no more than 180 days apart (60 CFR § 60.33f(f)(4)).

(b) Within 60 days after the date of calculating the NMOC emission rate for purposes of determining when the system can be capped or removed, the owner or operator must submit the results according to 40 CFR § 60.767(6)(ii)(2).

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G. Recordkeeping and Reporting Requirements

(1) *Recordkeeping*. The owner or operator of each MSW landfill shall meet the recordkeeping requirements of 40 CFR § 60.768, as applicable, except that:

(a) Each existing and planned collector in the system having a unique identification must match the labeling on the plot map required in 40 CFR § 60.767(d)(2).

(2) *Reporting*. The owner or operator of each MSW landfill shall meet the reporting requirements of 40 CFR § 60.767, as applicable, except:

(a) *Design Plan.* The owner or operator of a MSW landfill required to submit a design plan must also include a control system design plan cover page that contains the engineer's seal in addition to the requirements under 40 CFR § 60.767(c) (40 CFR § 60.38f(d)(4)).

(b) *Initial Performance Test Report*. The initial performance test report must be submitted, following the procedures specified in 40 CFR § 60.767(i)(1) no later than the date that the initial annual report is submitted.

(c) *Liquids Addition*. In addition to meeting the requirements of 40 CFR § 60.767(k), the initial report must contain items in 40 CFR § 60.767(k)(1) through (6) per year for the *most recent 365 days* as well as for each of the previous 10 years, to the extent data are available, and the report must be submitted no later than 365 days after the date of commenced construction, modification, or reconstruction after August 29, 2016 (40 CFR § 60.38f(l)(7).

(3) *Closed Landfill Subcategory*. The owner or operator of each MSW landfill meeting the closed landfill subcategory must meet the recordkeeping and reporting requirements of 40 CFR § 60.39f and 40 CFR § 60.38f, except:

(a) The owner or operator of a landfill in the closed landfill subcategory is not subject to the following reports, provided the owner or operator submitted these reports under the provisions of 40 CFR Part 60, Subpart WWW, 40 CFR Part 62, Subpart GGG, or a state plan implementing Subpart Cc of 40 CFR Part 60, Subpart Cf on or before July 17, 2014:

(i) Initial design capacity report specified in 40 CFR § 60.767(a);

(ii) Initial or subsequent NMOC emission rate report specified in 40 CFR § 60.767(b), provided the most recent NMOC emission rate report indicated the NMOC emissions were below 50 megagrams per year;

(iii) Collection and control systems design plan specified in 40 CFR § 60.767(c);

(iv) Revised design plan specified in 40 CFR § 60.767(d);

(v) Closure report specified in 40 CFR § 60.767(e);

(vi) Equipment removal report specified in 40 CFR § 60.767(f);

(vii) Initial annual report specified in 40 CFR § 60.767(g); and

(viii) Initial performance test report in 40 CFR § 60.767(h).

(b) *Liquids Addition*. The requirements of 40 CFR § 60.767(k)(1) through (7) shall not apply to MSW landfills that are in the closed landfill subcategory; and

(c) *Equipment Removal Report*. The dated copies of three successive NMOC emission rate reports must demonstrate that the landfill is no longer producing 50 megagrams or greater of NMOC per year,

unless the NMOC emission rate reports have been submitted to the U.S. EPA via the U.S. EPA's CDX.

H. Compliance Schedule

(1) The initial design capacity reports and NMOC emission rate reports required pursuant to 40 CFR § 60.762 and 40 CFR § 60.767 must be submitted no later than 90 days after the effective date of this rule under 40 CFR § 60.38(f)(a) and (c), except as provided in section G(3).

(2) Amended design capacity reports required pursuant to 40 CFR § 60.767 shall be submitted within 90 days of the increase of the maximum design capacity of the landfill to meet or exceed 2.5 million megagrams and 2.5 million cubic meters.

(3) The collection and control system design plan required under section F(2) of this rule shall be submitted within one year after determining that the MSW landfill has a NMOC emission rate equal to or greater than 34 megagrams per year, except as provided in 40 CFR § 60.767(c)(4)(i).

(4) The planning, awarding of contracts, installation, and starting up of the MSW landfill collection and control equipment required pursuant to section F(1) of this rule shall be accomplished within 30 months after meeting either of the following conditions:

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(a) An NMOC emission rate equal to or greater than 34 megagrams per year, as calculated pursuant to 40 CFR § 60.764 (Test Methods and Procedures) or a Tier 4 surface emissions monitoring report that shows a surface emissions concentration of 500 parts per million methane or greater as measured pursuant to 40 CFR § 60.764(a)(6); or

(b) A MSW landfill in the closed landfill subcategory having an NMOC emission rate equal to or greater than 50 megagrams per year, or Tier 4 surface emissions monitoring that shows a surface emissions concentration of 500 parts per million methane or greater pursuant to 40 CFR § 60.764(a)(6) and 40 CFR § 60.33f (b)(1)(ii).

(5) The initial performance test of the collection and control system equipment shall be accomplished within 180 days of control system startup.

To: landfill-111d@capcoa.org[landfill-111d@capcoa.org]
Cc: ARB (LMR) Landfill[ARBLMR@arb.ca.gov]; Dilley, Shannon@ARB[Shannon.Dilley@arb.ca.gov]; Griffin, Gerald[Gerald.Griffin@sdcounty.ca.gov]; BECKHAM, LISA[BECKHAM.LISA@EPA.GOV]
From: Crooks, Renaldo@ARB
Sent: Wed 2/15/2017 12:32:47 AM
Subject: 111(d) Landfill Workgroup Conference Call
2-2017 Draft EG TECHNICAL GUIDANCE SMD.docx

All -

Attached is the latest version of the 111(d) Landfill Guidance for your review and comment. This version incorporates comments that were received from the workgroup which consisted of: minor corrections to the text and references to the Emission Guidelines (Subpart Cf). The most significant changes were addressing specifications for active collection systems (see Section F(2)(a) of the Guidance) and compliance times (see Section H of the Guidance).

As a reminder, our next conference call is as follows:

Date: February 15, 2017

Time: 10:00 am – 11:00 am

Call in number: 1-866-765-6804

Participant code: 7130436

If you have any questions, please contact me via email or at (916) 327-5618.

Renaldo

To: landfill-111d@capcoa.org[landfill-111d@capcoa.org]
Cc: Dilley, Shannon@ARB[Shannon.Dilley@arb.ca.gov]; Le, Tung@ARB[ttle@arb.ca.gov]; Ingram, Wes@ARB[wingram@arb.ca.gov]; cgallens@arb.ca.gov[cgallens@arb.ca.gov]; Fong, Mei@ARB[Mei.fong@arb.ca.gov]; Dustin Brown (Dustin.Brown@valleyair.org)[Dustin.Brown@valleyair.org]; Griffin, Gerald[Gerald.Griffin@sdcounty.ca.gov]
From: Crooks, Renaldo@ARB
Sent: Thur 1/19/2017 10:59:53 PM
Subject: [Landfill - 111(d)] 111d Landfill Workgroup Meeting

All-

We would like to invite you to participate on a conference call to follow up with you and get your feedback on our compliance strategy to implement and enforce Subpart Cf - Emission Guidelines for MSW landfills. The conference call information is as follows:

Date: February 15, 2017

Time: 10:00 am – 11:00 am

Call in number: 1-866-765-6804

Participant code: 7130436

If you have any questions, please contact me via email or at (916) 327-5618.

Thank you,

Renaldo Crooks

To: landfill-111d@capcoa.org[landfill-111d@capcoa.org]
Cc: Le, Tung@ARB[ttle@arb.ca.gov]; Dilley, Shannon@ARB[Shannon.Dilley@arb.ca.gov]; Griffin, Gerald[Gerald.Griffin@sdcounty.ca.gov]; cgallens@arb.ca.gov[cgallens@arb.ca.gov]; Fong, Mei@ARB[Mei.fong@arb.ca.gov]; Loera, Maria@ARB[maria.loera@arb.ca.gov]; Lindberg, Jeff@ARB[Jeff.Lindberg@arb.ca.gov]; Ingram, Wes@ARB[wingram@arb.ca.gov]
From: Crooks, Renaldo@ARB
Sent: Wed 1/18/2017 10:53:03 PM
Subject: [Landfill - 111(d)] 111d Landfill Workgroup Meeting

All –

Air Resources Board staff would like to schedule another meeting to follow up with you and discuss our current thinking on our compliance strategy to implement and enforce Subpart Cf - Emission Guideline requirements for MSW landfills. Please let us know which of the following dates might work best for you and indicate if you would prefer a morning or afternoon conference call: 1/30, 2/9, 2/13, or 2/15.

Please respond by: **January 24, 2017**.

Thank you,

Renaldo Crooks

(916) 327-5618

To: landfill-111d@capcoa.org[landfill-111d@capcoa.org]
Cc: Le, Tung@ARB[ttle@arb.ca.gov]; Richardson, Theresa@ARB[Theresa.Richardson@arb.ca.gov]; Ingram, Wes@ARB[wingram@arb.ca.gov]; Vergara, Floyd@ARB[fvergara@arb.ca.gov]; cgallens@arb.ca.gov[cgallens@arb.ca.gov]; Mallory, David@ARB[dmallory@arb.ca.gov]; Dilley, Shannon@ARB[Shannon.Dilley@arb.ca.gov]; Fong, Mei@ARB[Mei.fong@arb.ca.gov]
From: Crooks, Renaldo@ARB
Sent: Thur 12/29/2016 9:33:55 PM
Subject: [Landfill - 111(d)] Update: Landfills - January 10, 2017, Public Meeting to Discuss California's Strategy for Compliance with New Federal Requirements for MSW Landfills

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Subject: UPDATE: Landfills – January 10, 2017, Public Meeting to Discuss California's Strategy for Compliance with New Federal Requirements for Municipal Solid Waste (MSW) Landfills

The Air Resources Board is updating a notice released on December 28, 2016, announcing a public meeting to discuss compliance with new federal MSW landfill requirements. The meeting date of January 10, 2017 is unchanged, but the time and place are changing to accommodate those who would like to participate via webcast.

Interested meeting participants may visit the following webpage for updated meeting details: https://www.arb.ca.gov/cc/landfills/landfills.htm

The California Air Resources Board (ARB or Board) staff invites you to participate in a public meeting to discuss California's plan for compliance with the U.S. Environmental Protection Agency's new Emission Guidelines and Compliance Times for MSW Landfills (Title 40 Code of Federal Regulations, Part 60 Subpart Cf).

In accordance with section 111(d) of the federal Clean Air Act, the State and local air districts must develop and submit a State Plan to implement and enforce the requirements of the new Emission Guidelines. The State Plan must be submitted to the U.S. EPA by May 30, 2017.

The listserv notice for this public meeting, along with additional information regarding ARB's landfill activities, including development of California's Strategy for Compliance with New Federal Requirements for MSW Landfills, is available at: https://www.arb.ca.gov/cc/landfills/landfills.htm.

DATE: Tuesday, January 10, 2017

TIME: 1:30 PM to 4:30PM

PLACE: California Environmental Protection Agency

Sierra Hearing Room (2nd Floor)

1001 I Street

Sacramento, California 95814

For more information please contact: Renaldo Crooks at (916) 327-5618 or Renaldo.Crooks@arb.ca.gov

Webcast: https://video.calepa.ca.gov

Please send your e-mailed questions for Q&A participation to: sierrarm@calepa.ca.gov

For directions, transportation options, and parking information, please visit the following webpage:

http://www.calepa.ca.gov/EPABldg/location.htm.

To: James.harader@valleyair.org[James.harader@valleyair.org]; jim.swaney@sdcounty.ca.gov[jim.swaney@sdcounty.ca.gov]; Ortega, Angela (Angela.Ortega@sdcounty.ca.gov)[Angela.Ortega@sdcounty.ca.gov]; Joe.Herzig@sdcounty.ca.gov[Joe.Herzig@sdcounty.ca.gov]; Andrew Lee (ALee@aqmd.gov)[ALee@aqmd.gov]; soktay@mdaqmd.ca.gov[soktay@mdaqmd.ca.gov]; Barry Young (BYoung@baaqmd.gov)[BYoung@baaqmd.gov]; tendow@baaqmd.gov[tendow@baaqmd.gov]; Michael F. Goldman[goldmanm@sbcapcd.org]; Dustin.Brown@valleyair.org[Dustin.Brown@valleyair.org]; lcarey@baaqmd.gov[lcarey@baaqmd.gov]; krobison@airquality.org[krobison@airquality.org]; BECKHAM, LISA[BECKHAM.LISA@EPA.GOV]; aclymo@mbard.org[aclymo@mbard.org]; mgiraudo@mbard.org[mgiraudo@mbard.org]; dlusk@bcaqmd.org[dlusk@bcaqmd.org]; Paul Hensleigh[PHensleigh@ysaqmd.org]; israelhernandez@co.imperial.ca.us[israelhernandez@co.imperial.ca.us]; 'Gary Willey' (gwilley@co.slo.ca.us)[gwilley@co.slo.ca.us]; CTUPAC@aqmd.gov[CTUPAC@aqmd.gov]
Cc: Alan Abbs <> (alan@capcoa.org)[alan@capcoa.org]; Buss, Jeffrey[Buss.Jeffrey@epa.gov]; cgallens@arb.ca.gov[cgallens@arb.ca.gov]; Crooks, Renaldo@ARB[renaldo.crooks@arb.ca.gov]; Dilley, Shannon@ARB[Shannon.Dilley@arb.ca.gov]; Ingram, Wes@ARB[wingram@arb.ca.gov]
From: Le, Tung@ARB
Sent: Mon 12/12/2016 8:12:30 PM
Subject: RE: Draft 111(d) Landfill Rule Guidance
2016-12-9 Final Draft EG TECHNICAL GUIDANCE - RED LINE.DOCX
2016-12-9 Final Draft EG TECHNICAL GUIDANCE - CLEAN.DOCX

Hello all –

As mentioned in my note last week, ARB's legal office has been reviewing the draft federal landfill rule guidance. Please find attached two documents:

•□□□□□□□□ A strikeout/underline version of the rule guidance which incorporates ARB legal's revisions (based off of the 12/6 draft we initially provided below)

•□□□□□□□□ A clean version of the above

You will note that most of the revisions are to streamline the guidance, and includes IBR language where doing so would provide clarity and help ease district rulemaking burden (overall, it makes the rule guidance shorter as well). The major provisions of the federal rules continue to be represented in both versions, and have not changed. Please note that the work group will be referencing the latest version of the rule guidance dated 12-9-2016, attached, moving forward.

Again, we are asking comments on the draft guidance be submitted to Renaldo Crooks by COB this Friday, December 16. However, should you need more time to review, please let me, Renaldo or Chris know as soon as possible. As always, feel free to contact any one of us should

you have questions or wish to discuss. Thanks

Tung

From: Le, Tung@ARB
Sent: Tuesday, December 06, 2016 12:45 PM
Subject: Draft 111(d) Landfill Rule Guidance

All –

Please find attached a DRAFT of the 111(d) landfill guidance as discussed during our initial work group meeting. Note that this draft guidance is based on the 1997 guidance developed by the ARB/district work group at that time, but has been updated to reflect the most recent changes to the federal requirements. It entails provisions that should be included in district rules in order to show compliance with these revised federal requirements.

Please note that ARB's legal office is concurrently reviewing, therefore additional revisions may be forthcoming. We do not anticipate those revisions to be significant, however, and will share them with you as soon as they become available.

Please review the draft guidance and if appropriate, forward to your respective legal offices to review as well. We would appreciate any comments on the draft guidance by COB Friday, December 16.

Comments and suggested revisions may be sent to Renaldo Crooks, who will be compiling them for the work group: renaldo.crooks@arb.ca.gov. Once we have the group's input, we'll work towards finalizing the document.

Should you have any questions, please feel free to contact Renaldo Crooks, Chris Gallenstein or myself. Thanks

Tung

Regulatory Updates
November 2016
EPA Region 9

New Items!

1. **E-Notice Rule Finalized:** October 5, 2016 - EPA is issuing a final rule revising its public notice regulations for the New Source Review, title V and Outer Continental Shelf permit programs of the Clean Air Act. This action removes the mandatory requirement to provide public notice for draft permits (and certain other program actions) by newspaper publication and instead provides for electronic-notice (e-notice) of these actions. Permitting authorities that implement e-notice also are required to post the draft permit on a website (e-access).

   https://www.epa.gov/nsr/clean-air-act-permitting-electronic-notice-final-rule

2. **Ozone Implementation Rule – Proposed:** November 2, 2016, The EPA is proposing requirements for implementing the strengthened 2015 ozone NAAQS (the ''2015 ozone NAAQS'') that were promulgated on October 1, 2015. **Comments will be due 60 days after publication in the Federal Register.**

   This rule proposal contains three main components:
   1) nonattainment area classification thresholds and the timing of attainment dates for each nonattainment area classification for the 2015 ozone NAAQS;
   2) options to revoke the 2008 ozone NAAQS and, where applicable, provide anti-backsliding requirements to help smooth the transition between the two standards for nonattainment areas; and
   3) SIP requirements for states with nonattainment areas and states in an ozone transport region under the 2015 ozone NAAQS.

   More Info: https://www.epa.gov/ozone-pollution/implementation-2015-national-ambient-air-quality-standards-naaqs-ozone-state

   Fact Sheet: https://www.epa.gov/sites/production/files/2016 11/documents/fact_sheet_2015_ozone_implementation_proposal.pdf

3. **NESHAP for Area Sources: Industrial, Commercial, and Institutional Boilers** – resolving certain issues raised in petitions for reconsideration. Final rule was signed 8/23/16, and published in the **Federal Register** on 9/14/16, at 81 FR 63112. This final rule is effective as of 9/14/16.

   https://www.epa.gov/stationary-sources-air-pollution/industrial-commercial-and-institutional-area-source-boilers

4. **Mercury and Air Toxics Standards (MATS) Completion of Electronic Reporting Requirements** proposed rule was signed 8/23/16, and published in the **Federal Register** on 9/29/16, at 81 FR 67062. Comments must be received on or before 10/31/16. The EPA is proposing changes to the electronic reporting requirements for MATS. This is the next step toward streamlining the "e-reporting" requirements in MATS so power plants can submit all the required emissions data through a single, familiar electronic system – rather than two separate systems.

Fact Sheet: https://www.epa.gov/sites/production/files/201608/documents/fact-sheet-mats-ereporting-proposal-20160823.pdf
https://www.epa.gov/mats/mats-proposed-rule-streamline-e-reporting-requirements-august-2016

5. **Proposed Information Collection Request; Comment Request; Information Collection Request for Plywood and Composite Wood Products National Emission Standards For Hazardous Air Pollutants (NESHAP) Residual Risk and Technology Review (RTR)**, was signed 9/1/16, and publish in the **Federal Register** on 9/8/16, at 81 FR 62125. Comments must be submitted on or before 11/7/16.

6. **Information Collection Request Submitted to OMB for Review and Approval; Comment Request; Information Collection Effort for Oil and Gas Facilities**, was signed 9/23/16, and publish in the **Federal Register** on 9/29/16, at 66962. The EPA has submitted an information collection request (ICR), "Information Collection Effort for Oil and Gas Facilities" (EPA ICR No. 2548.01, OMB Control No. 2060-NEW) to OMB for review and approval in accordance with the Paperwork Reduction Act (44 U.S.C. 3501 *et seq*.). This is a request for approval of a new collection. Public comments were previously requested via the **Federal Register** (81 FR 35763) on 6/3/16, during a 60-day comment period. This notice allows for an additional 30 days for public comments. Additional comments may be submitted on or before 10/31/16.

7. **Clarification of Reconsideration of the Oil and Natural Gas Sector: New Source Performance Standards; Final Action**, was signed 9/26/16, and published in the **Federal Register** 10/4/16 at 81 FR 68411. The EPA is providing notice that it has clarified the scope of its 7/29/16, response to petitions for reconsideration of the 2012 final rule titled" Oil and Natural Gas Sector: New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants Reviews," and the subsequent amendments published in the **Federal Register** on 9/23/13, and 12/31/14. The EPA has sent a letter to each of the petitioners clarifying that the 7/29/16, action denied the above mentioned petitions only with respect to the issues related to the new source performance standards, and was not intended to include denial of reconsideration of any issue relative to the 2012 action on the national emission standards for hazardous air pollutants (2012 NESHAP). The letters further state that, to the extent the 7/29/16, action may be construed to have denied reconsideration of issues relative to the 2012 NESHAP, the follow-up letters supersede that previous action on NESHAP-related matters.

Other NSPS and NESHAP Updates

For NESHAPs, see also https://www3.epa.gov/airtoxics/mactfnlalph.html for more information.

8. **RICE NSPS/NESHAP** ***Engines info: https://www3.epa.gov/ttn/atw/icengines/***

Guidance on Vacatur of RICE NESHAP and NSPS Provisions for Emergency Engines
Guidance regarding the D.C. Circuit Court decision vacating the provisions in the RICE NESHAP and NSPS that specified that emergency engines may operate for emergency demand response and deviations in voltage or frequency is available on the Technical Info page. The D.C. Circuit Court issued the mandate for the vacatur on May 4, 2016.

Final Amendments to NSPS for Stationary Compression Ignition Internal Combustion Engines

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EPA finalized amendments that would allow operators to temporarily override features that shutdown the engine when NOx emission control equipment is not operating during an emergency situation where there is a risk to human life. See 81 FR 44212 on 7/7/2016.

9. **Boiler MACT (Subpart DDDDD) - 11/20/15, at 80 FR 72790**
   Boilers info: https://www3.epa.gov/airquality/combustion/actions.html

   The EPA finalized revisions to the 2013 amendments to the Boiler MACT, as a result of reconsideration of three of its provisions. In this action: (1) EPA retained the three reconsidered provision;, (2) finalizing the proposed alternate definition of startup and the proposed alternative work practice standards that must be employed during startup periods; (3) finalizing a number of clarifying changes and corrections to the final rule to provide accuracy, clarity and consistency; (4) finalizing the removal of the affirmative defense provision (section 63.7501 of subpart DDDDD) from the final rule, in light of the recent Court decision vacating the provision in the Portland Cement National Emission Standards for Hazardous Air Pollutants.

10. **Oil and Natural Gas Sector: Request for Information, Emerging Technologies** notice was signed on 7/8/16, and published in the **Federal Register** on 7/18/16, at 81 FR 46670. The EPA is issuing this request for information to the public to obtain information about monitoring, detection of fugitive emissions, and alternative mitigation approaches in the oil and natural gas sector. **Responses must be received on or before 11/15/16. See: https://www3.epa.gov/airquality/oilandgas/methane.html**

11. The **National Emission Standards for Hazardous Air Pollutant Emissions: Petroleum Refinery Sector Amendments** final rule was published 7/13/2016 at 81 FR 45232. This action adjusts the compliance date for regulatory requirements that apply at maintenance vents during periods of startup, shutdown, maintenance or inspection for sources constructed or reconstructed on or before June 30, 2014. Second, this action amends the compliance dates for the regulatory requirements that apply during startup, shutdown or hot standby for fluid catalytic cracking units and startup and shutdown for sulfur recovery units constructed or reconstructed on or before June 30, 2014. Finally, this action finalizes technical corrections and clarifications to the NESHAP and the NSPS for Petroleum Refineries. These amendments are being finalized in response to new information submitted after these regulatory requirements were promulgated as part of the RTR rulemaking, which was published on 12/1/15. This action will have an insignificant effect on emissions reductions and costs.

12. **Supplemental Finding That it is Appropriate and Necessary to Regulate Hazardous Air Pollutants From Coal- and Oil-Fired Electric Utility Steam Generating Units (Subpart UUUUU)** or Mercury and Air Toxics Standards (MATS) published in the **Federal Register** on 4/25/16, at 81 FR 24419. This action responds to the U.S. Supreme Court decision in *Michigan* v. *EPA,* 135 S. Ct. 2699 (2015), and explains how the EPA has taken cost into account in evaluating whether it is appropriate and necessary to regulate coal- and oil-fired EGUs under section 112 of the CAA.

13. **Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Commercial and Industrial Solid Waste Incineration Units** (CISWI) final rule was signed 5/5/16, and published in the **Federal Register** on 6/23/16, at 81 FR 40956. This action sets forth the EPA's final decision on the issues for which it granted reconsideration on 1/21/15, which pertain to certain aspects of the 2/7/13, final CISWI rule. The EPA is finalizing proposed actions on these four topics: Definition of "continuous emission monitoring system data during startup and shutdown periods;" particulate matter limit for the waste-burning kiln subcategory; fuel variability factor for coal-burning energy recovery units;

and the definition of "kiln." This action also includes EPA's final decision to deny the requests for reconsideration of all other issues raised in the petitions for reconsideration of the 2013 final CISWI rule for which EPA did not grant reconsideration.

14. **National Emission Standards for Hazardous Air Pollutants for the Portland Cement Manufacturing Industry – 40 CFR part 63 subpart LLL**

Direct Final Rule and Parallel Proposal were signed 7/14/16, and published in the **Federal Register** on 7/25/16, at 81 FR 48372 and 81 FR 48356. This direct final rule provides, for a period of 1 year, an additional compliance alternative for sources that would otherwise be required to use a hydrochloric acid (HCl) continuous emissions monitoring system to demonstrate compliance with the HCl emissions limit. This compliance alternative is needed due to the current unavailability of a calibration gas used for quality assurance purposes. This direct final rule also restores regulatory text requiring the reporting of clinker production and kiln feed rates that was deleted inadvertently. This rule is effective on 9/8/16, without further notice, unless the EPA receives significant adverse comment by 8/24/16.

More info: https://www3.epa.gov/airquality/cement/actions.html

15. **Municipal Solid Waste Landfills**

Standards of Performance for Municipal Solid Waste Landfills – 40 CFR part 60 subpart XXX final rule was signed 7/14/16. The EPA is finalizing a new subpart that updates the Standards of Performance for Municipal Solid Waste Landfills. The EPA's review of the standards for municipal solid waste landfills considered landfills that commence construction, reconstruction, or modification after 7/17/14. The final standards also reflect changes to the population of landfills and an analysis of the timing and methods for reducing emissions. This action will achieve additional reductions in emissions of landfill gas and its components, including methane, by lowering the emissions threshold at which a landfill must install controls. This action also incorporates new data and information received in response to the proposed rulemaking and addresses other regulatory issues including surface emissions monitoring, wellhead monitoring, and the definition of landfill gas treatment system.

Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills – 40 CFR part 60 subpart Cf final rule was signed 7/14/16. The EPA is finalizing a new subpart that updates the Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills (Emission Guidelines). The EPA reviewed the landfills Emission Guidelines based on changes in the landfills industry since the Emission Guidelines were promulgated in 1996. This action will achieve additional reductions in emissions of landfill gas and its components, including methane, by lowering the emissions threshold at which a landfill must install controls. This action also incorporates new data and information received in response to an advanced notice of proposed rulemaking and a proposed rulemaking and addresses other regulatory issues including surface emissions monitoring, wellhead monitoring, and the definition of landfill gas treatment system.

More info: https://www.epa.gov/stationary-sources-air-pollution/municipal-solid-waste-landfills-new-source-performance-standards

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Other Permitting/Planning Updates

For more information about permitting rules and the NSR program in general, please visit http://www.epa.gov/nsr.

16. **Proposed Removal of Title V Emergency Affirmative Defense Provisions**
    June 14, 2016 – The EPA is proposing to align its operating permits program with requirements for air emissions limits set under other Clean Air Act programs. This proposal would remove the "emergency" affirmative defense provisions from the title V operating permit program regulations.

    Fact Sheet: https://www.epa.gov/sites/production/files/201606/documents/fact_sheet_title_v_emergency_affirmative_defense_proposal.pdf
    Proposal: https://www.gpo.gov/fdsys/pkg/FR -2016-06-14/pdf/2016-14104.pdf

17. **PM2.5 NAAQS Implementation Final Rule and Fact Sheet July 2016**
    This rule establishes planning requirements for states with areas that do not meet the National Ambient Air Quality Standards for fine particle pollution. These states must develop plans that demonstrate how they will meet the standards. This rule allows states to rely on common-sense strategies to implement particle pollution standards, and it also responds to a January 2013 court decision on EPA's previous rules implementing the fine particle pollution standards.

    Fact Sheet for SIP Requirements: https://www.epa.gov/sites/production/files/2016-07/documents/fact-sheet-final-pm25-impl-rule.pdf

    More info: https://www.epa.gov/pm-pollution/implementation-national-ambient-air-quality-standards-naaqs-fine-particulate-matter (Pages 368-427 of the pre-publication version of the Final Rule discuss nonattainment NSR permitting.)

18. **Significant Impact Levels for Ozone and Fine Particle in the Prevention of Significant Deterioration Permitting Program**
    EPA is making available for public comment draft guidance and supporting documents recommending Significant Impact levels (SILs) for ozone and fine particle pollution that may be used in the Prevention of Significant Deterioration (PSD) permitting program. SILs have been used in the PSD permitting process for many years to help determine whether proposed construction may be authorized in a Clean Air Act permit. **EPA will accept public comment on the draft guidance and supporting documents through September 30, 2016.**

    Draft Guidance: https://www.epa.gov/sites/production/files/201608/documents/pm2_5_sils_and_ozone_draft_guidance.pdf

    Webinar Presentation: https://www.epa.gov/sites/production/files/201608/documents/webinar-ozone-pm25-sils-guidance-20160824.pdf

19. **Proposed Revisions to the Petition Provisions of the Title V Permitting Program**
    August 15, 2016 – EPA is proposing revisions to the title V operating permit regulations aimed at increasing stakeholder understanding of the title V petition process and ensuring consistent presentation of critical information. The proposed revisions would provide direction for submitting title V petitions, including

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encouraging the use of an electronic submittal system. **EPA will accept comments for 60 days after publication in the Federal Register.**

Fact Sheet: https://www.epa.gov/sites/production/files/201608/documents/petitionsrule_proposal_factsheet_final_0815-16.pdf

Proposal: https://www.epa.gov/sites/production/files/201608/documents/title_v_petitions_rule_815-16.pdf

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Regulatory Updates
November 2016
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is providing notice that it has clarified the scope of its 7/29/16, response to petitions for reconsideration of the 2012 final rule titled" Oil and Natural Gas Sector: New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants Reviews," and the subsequent amendments published in the **Federal Register** on 9/23/13, and 12/31/14. The EPA has sent a letter to each of the petitioners clarifying that the 7/29/16, action denied the above mentioned petitions only with respect to the issues related to the new source performance standards, and was not intended to include denial of reconsideration of any issue relative to the 2012 action on the national emission standards for hazardous air pollutants (2012 NESHAP). The letters further state that, to the extent the 7/29/16, action may be construed to have denied reconsideration of issues relative to the 2012 NESHAP, the follow-up letters supersede that previous action on NESHAP-related matters.

NSPS and NESHAP Updates

For NESHAPs, see also https://www3.epa.gov/airtoxics/mactfnlalph.html for more information.

1. **RICE NSPS/NESHAP** *Engines info: https://www3.epa.gov/ttn/atw/icengines/*

   Guidance on Vacatur of RICE NESHAP and NSPS Provisions for Emergency Engines
   Guidance regarding the D.C. Circuit Court decision vacating the provisions in the RICE NESHAP and NSPS that specified that emergency engines may operate for emergency demand response and deviations in voltage or frequency is available on the Technical Info page. The D.C. Circuit Court issued the mandate for the vacatur on May 4, 2016.

   Final Amendments to NSPS for Stationary Compression Ignition Internal Combustion Engines
   EPA finalized amendments that would allow operators to temporarily override features that shutdown the engine when NOx emission control equipment is not operating during an emergency situation where there is a risk to human life. See 81 FR 44212 on 7/7/2016.

   Reminder - Emergency Engine Demand Response Electronic Reports due March 31, 2016

2. **Boiler MACT (Subpart DDDDD) - 11/20/15, at 80 FR 72790**
   Boilers info: https://www3.epa.gov/airquality/combustion/actions.html

   The EPA finalized revisions to the 2013 amendments to the Boiler MACT, as a result of reconsideration of three of its provisions. In this action: (1) EPA retained the three reconsidered provision;, (2) finalizing the proposed alternate definition of startup and the proposed alternative work practice standards that must be employed during startup periods; (3) finalizing a number of clarifying changes and corrections to the final rule to provide accuracy, clarity and consistency; (4) finalizing the removal of the affirmative defense provision (section 63.7501 of subpart DDDDD) from the final rule, in light of the recent Court decision vacating the provision in the Portland Cement National Emission Standards for Hazardous Air Pollutants.

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5. **Federal Plan Requirements for Greenhouse Gas Emissions from Electric Utility Generating Units Constructed on or Before January 8, 2014; Model Trading Rule (Clean Power Plan Federal Plan)** proposed rule was signed 8/3/15. In this action, the EPA is proposing a federal plan and model trading rules to implement the GHG emission guidelines (EGs) for existing fossil fuel-fired EGUs under the CAA. The EPA is also proposing enhancements to the CAA section 111(d) framework regulations related to the process and timing for state plan submissions and EPA actions.

6. **Supplemental Finding That it is Appropriate and Necessary to Regulate Hazardous Air Pollutants From Coal- and Oil-Fired Electric Utility Steam Generating Units (Subpart UUUUU)** or Mercury and Air Toxics Standards (MATS) published in the **Federal Register** on 4/25/16, at 81 FR 24419. This action responds to the U.S. Supreme Court decision in *Michigan* v. *EPA,* 135 S. Ct. 2699 (2015), and explains how the EPA has taken cost into account in evaluating whether it is appropriate and necessary to regulate coal- and oil-fired EGUs under section 112 of the CAA.

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8. **National Emission Standards for Hazardous Air Pollutants for the Portland Cement Manufacturing Industry – 40 CFR part 63 subpart LLL**

Direct Final Rule and Parallel Proposal were signed 7/14/16, and published in the **Federal Register** on 7/25/16, at 81 FR 48372 and 81 FR 48356. This direct final rule provides, for a period of 1 year, an additional compliance alternative for sources that would otherwise be required to use a hydrochloric acid (HCl) continuous emissions monitoring system to demonstrate compliance with the HCl emissions limit. This compliance alternative is needed due to the current unavailability of a calibration gas used for quality assurance purposes. This direct final rule also restores regulatory text requiring the reporting of clinker production and kiln feed rates that was deleted inadvertently. This rule is effective on 9/8/16, without further notice, unless the EPA receives significant adverse comment by 8/24/16.

More info: https://www3.epa.gov/airquality/cement/actions.html

9. Municipal Solid Waste Landfills

Standards of Performance for Municipal Solid Waste Landfills – 40 CFR part 60 subpart XXX final rule was signed 7/14/16. The EPA is finalizing a new subpart that updates the Standards of Performance for Municipal Solid Waste Landfills. The EPA's review of the standards for municipal solid waste landfills considered landfills that commence construction, reconstruction, or modification after 7/17/14. The final standards also reflect changes to the population of landfills and an analysis of the timing and methods for reducing emissions. This action will achieve additional reductions in emissions of landfill gas and its components, including methane, by lowering the emissions threshold at which a landfill must install controls. This action also incorporates new data and information received in response to the proposed rulemaking and addresses other regulatory issues including surface emissions monitoring, wellhead monitoring, and the definition of landfill gas treatment system.

Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills – 40 CFR part 60 subpart Cf final rule was signed 7/14/16. The EPA is finalizing a new subpart that updates the Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills (Emission Guidelines). The EPA reviewed the landfills Emission Guidelines based on changes in the landfills industry since the Emission Guidelines were promulgated in 1996. This action will achieve additional reductions in emissions of landfill gas and its components, including methane, by lowering the emissions threshold at which a landfill must install controls. This action also incorporates new data and information received in response to an advanced notice of proposed rulemaking and a proposed rulemaking and addresses other regulatory issues including surface emissions monitoring, wellhead monitoring, and the definition of landfill gas treatment system.

More info: https://www3.epa.gov/airtoxics/landfill/landflpg.html

Permitting Updates

For more information about these rules and the NSR program in general, please visit http://www.epa.gov/nsr.

10. Revisions to Public Notice Requirements for Clean Air Act Permitting Programs – 80 FR 81234, Dec. 29, 2015 – Proposal

The rule will revise the public noticing rule provisions for the title V, NSR and OCS permit programs. The rule will remove the mandatory requirement for a permitting authority to provide notice of a permitting action through publication in a newspaper and to instead allow for noticing of permits electronically on agency websites (i.e., electronic notice, or "e-notice"). The rule will describe what is required to provide electronic notice of a permit action as well as electronic access to the permitting record. Proposed rule signed December 21, 2015. Public comment period closes February 29, 2016.

More info: https://www.epa.gov/nsr/clean-air-act-permitting-electronic-notice-proposal

11. Proposed Removal of Title V Emergency Affirmative Defense Provisions

June 14, 2016 – The EPA is proposing to align its operating permits program with requirements for air emissions limits set under other Clean Air Act programs. This proposal would remove the "emergency" affirmative defense provisions from the title V operating permit program regulations.

Fact Sheet: https://www.epa.gov/sites/production/files/2016-

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06/documents/fact sheet title v emergency affirmative defense proposal.pdf
Proposal: https://www.gpo.gov/fdsys/pkg/FR-2016-06-14/pdf/2016-14104.pdf

12. PM2.5 NAAQS Implementation Final Rule and Fact Sheet July 2016

This rule establishes planning requirements for states with areas that do not meet the National Ambient Air Quality Standards for fine particle pollution. These states must develop plans that demonstrate how they will meet the standards. This rule allows states to rely on common-sense strategies to implement particle pollution standards, and it also responds to a January 2013 court decision on EPA's previous rules implementing the fine particle pollution standards.

Fact Sheet for SIP Requirements: https://www.epa.gov/sites/production/files/2016-07/documents/fact-sheet-final-pm25-impl-rule.pdf

More info: https://www.epa.gov/pm-pollution/implementation-national-ambient-air-quality-standards-naaqs-fine-particulate-matter (Pages 368-427 of the pre-publication version of the Final Rule discuss nonattainment NSR permitting.)

13. Significant Impact Levels for Ozone and Fine Particle in the Prevention of Significant Deterioration Permitting Program

EPA is making available for public comment draft guidance and supporting documents recommending Significant Impact levels (SILs) for ozone and fine particle pollution that may be used in the Prevention of Significant Deterioration (PSD) permitting program. SILs have been used in the PSD permitting process for many years to help determine whether proposed construction may be authorized in a Clean Air Act permit. **EPA will accept public comment on the draft guidance and supporting documents through September 30, 2016.**

The draft guidance, legal support memorandum, technical basis document, and appendices are available here: **https://www.epa.gov/nsr/forms/significant-impact-levels-ozone-and-fine-particles-prevention-significant-deterioration** **(Can use this link to submit comments)**

14. Proposed Revisions to the Petition Provisions of the Title V Permitting Program

August 15, 2016 – EPA is proposing revisions to the title V operating permit regulations aimed at increasing stakeholder understanding of the title V petition process and ensuring consistent presentation of critical information. The proposed revisions would provide direction for submitting title V petitions, including encouraging the use of an electronic submittal system. **EPA will accept comments for 60 days after publication in the Federal Register.**

Fact Sheet: https://www.epa.gov/sites/production/files/2016-08/documents/petitionsrule_proposal_factsheet_final_08-15-16.pdf
Proposal: https://www.epa.gov/sites/production/files/2016-08/documents/title_v_petitions_rule_8-15-16.pdf

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To: BECKHAM, LISA[BECKHAM.LISA@EPA.GOV]
From: Arizona Department of Environmental Quality
Sent: Fri 6/2/2017 7:18:34 PM
Subject: Notification of Federal Stay | Municipal Solid Waste Landfill Rules

Dear Interested Party,

On May 31, 2017, the Environmental Protection Agency administratively stayed the federal rules requiring new emission guidelines and New Source Performance Standards for municipal solid waste landfills in their entirety for 90 days. These federal rules were previously promulgated at 40 CFR Part 60, Subpart Cf and 40 CFR Part 60, Subpart XXX.

Before the federal stay, the Arizona Department of Environmental Quality (ADEQ) amended R18-2-731 and R18-2-901 to incorporate by reference subparts Cf and XXX. ADEQ held a public comment period and hearing on these amendments and a proposed Clean Air Act Section 111(d) state plan on May 15, 2017. ADEQ appreciates the input received from stakeholders.

Due to the federal stay, ADEQ has suspended work on the rule amendments and the 111(d) plan until further notice. ADEQ will keep stakeholders informed throughout this process.

For more information, access the stay notice (82 FR 24878) on regulations.gov >

For questions or more information, please contact:
Natalie Muilenberg

Supervisor, Planning Unit, Air Quality Improvement Planning Section

(602) 771-1089 or nm3@azdeq.gov

Accessibility
To request an aid or service or to obtain this information in a different format contact: Ph 602-771-2215 | TTY/TTD Services: 7-1-1 | Email >

About ADEQ

Under the Environmental Quality Act of 1986, the Arizona State Legislature established the Arizona Department of Environmental Quality in 1987 as the state agency for protecting and enhancing public health and the environment of Arizona. For more information,

visit http://www.azdeq.gov/.

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This email was sent to beckham.lisa@epa.gov using GovDelivery, on behalf of: Arizona Department of Environmental Quality (ADEQ) · 1110 West Washington Street · Phoenix, AZ 85007 · 1-602-771-2300

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To: BECKHAM, LISA[BECKHAM.LISA@EPA.GOV]; Sheppard, Andrew[sheppard.andrew@epa.gov]
Cc: Elias Toon[Toon.Elias@azdeq.gov]; Natalie Muilenberg[Muilenberg.Natalie@azdeq.gov]; Mike Sonenberg[Sonenberg.Mike@azdeq.gov]
From: Ryan C. Templeton
Sent: Wed 3/14/2018 1:33:39 PM
Subject: Arizona Municipal Solid Waste Landfill 111(d) Public Process
2018_3_6_Final_Landfill Public Notice.pdf
AQD PUBLIC COMMENT PERIOD AND HEARING.docx
Proposed_State Plan Revision_MSW-Landfill.pdf

Hey Lisa and Andy,

I wanted to let you know that ADEQ's municipal solid waste landfill 111(d) plan and the associated proposed rule changes will begin a second public comment phase this Friday March 14, 2018. We will hold a public hearing on April 16, 2018. I have attached our public notice that will be sent out later this week and a copy of the proposed plan.

Please let me know if you have any questions.

Ryan Templeton

Environmental Engineer Specialist

Air Quality Improvement Planning Section

Air Quality Division, Arizona Department of Environmental Quality

1110 W. Washington Street

Phoenix, AZ 85007

(602) 771-4230

rct@azdeq.gov

ADEQ Arizona Department of Environmental Quality

PUBLIC NOTICE

AQD PUBLIC COMMENT PERIOD AND HEARING

The Arizona Department of Environmental Quality, Air Quality Division, welcomes comments on the proposed Clean Air Act Section 111(d) plan and amendments to Arizona Administrative Code (A.A.C.) R18-2-731 and R18-2-901 applicable to Municipal Solid Waste (MSW) landfills.

Pursuant to Section 111 of the Clean Air Act, Arizona proposes to submit the plan and rule amendments to the U.S. Environmental Protection Agency (EPA) to establish standards of performance for existing MSW landfills located within ADEQ's jurisdiction. The proposed revisions to R18-2-731 and R18-2-901 incorporate by reference new federal rules applicable to MSW landfills.

Comments will be accepted between March 16, 2018 and April 16, 2018. Comments may be mailed, faxed, or emailed to Elias Toon, Air Quality Division, Air Quality Improvement Planning Section, Arizona Department of Environmental Quality, 1110 W. Washington St., Phoenix, AZ 85007; fax (602) 771-2299; email toon.elias@azdeq.gov. ADEQ will address comments applicable to the proposed Clean Air Act Section 111(d) plan and amendments to R18-2-731 and R18-2-901.

Comments are also welcome at the public hearing held on April 16, 2018 at 1:00 p.m., at Arizona Department of Environmental Quality, 1110 W. Washington St. Rm. 3100A, Phoenix, AZ 85007. Comments must be received no later than April 16, 2018 by 5:00 p.m., or submitted at the public hearing. Mailed comments must be postmarked by April 16, 2018.

Review the CAA Section 111(d) plan and amendments to R18-2-731 and R18-2-901 online at: www.azdeq.gov.

Review the CAA Section 111(d) plan and amendments to R18-2-731 and R18-2-901 in person at the ADEQ Records Center, 1110 W. Washington St., Phoenix, AZ 85007. For hours or appointment scheduling, call (602) 771-4380 or (800) 234-5677 ext. (602) 771-4380.

For more information, contact Elias Toon at (602) 771-4665 or toon.elias@azdeq.gov.

ADEQ will take reasonable measures to provide access to department services to individuals with limited ability to speak, write, or understand English and/or to those with disabilities. Requests for language interpretation services or for disability accommodations must be made at least 48 hours in advance by contacting: 7-1-1 for TDD; (602) 771-2215 for Disability Accessibility; or Ian Bingham, Title VI Nondiscrimination Coordinator at (602) 771-4322 or idb@azdeq.gov. Disclaimer: Any ADEQ translation or communication in a language other than English is unofficial.

ADEQ tomará medidas razonables para proveer acceso a los servicios del departamento para personas con capacidad limitada para hablar, escribir o entender Inglés y / o para las personas

con discapacidad. Las solicitudes de servicios de interpretación del lenguaje o de alojamiento de discapacidad deben hacerse por lo menos 48 horas de antelación poniéndose en contacto con Ian Bingham, Title VI Nondiscrimination Coordinator al (602) 771-4322 o idb@azdeq.gov. Cualquier traducción o comunicado de ADEQ en un idioma diferente al inglés no es oficial.

ADEQ Arizona Department of Environmental Quality

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ADEQ welcomes comments on the proposed Clean Air Act Section 111(d) plan and amendments to R18-2-731 and R18-2-901.

Pursuant to Section 111 of the Clean Air Act, Arizona proposes to submit a 111(d) plan to EPA to establish standards of performance for existing MSW landfills located within ADEQ's jurisdiction. The proposed revisions to R18-2-731 and R18-2-901 incorporate by reference new federal rules applicable to MSW landfills.

Comments will be accepted between March 16, 2018 and April 16, 2018. Comments may be mailed, faxed, or emailed to Elias Toon, Air Quality Division, Air Quality Improvement Planning Section, Arizona Department of Environmental Quality, 1110 W. Washington St., Phoenix, AZ 85007; fax (602) 771-2299; email toon.elias@azdeq.gov. ADEQ will address comments applicable to the proposed Clean Air Act Section 111(d) plan and amendments to R18-2-731 and R18-2-901.

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ADEQ
Arizona Department of Environmental Quality

State Plan for Implementing the Municipal Solid Waste Landfill Emission Guidelines for Arizona

Air Quality Division
March 8, 2018 Proposed

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1 Introduction

On August 29, 2016 the Environmental Protection Agency (EPA) finalized rulemakings in the federal register updating the *Standards of Performance for Municipal Solid Waste Landfills* (NSPS) and *Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills* (EG). These rules became effective October 28, 2016 and were adopted in the code of federal regulation (CFR) under Title 40 CFR Part 60, Subpart XXX and Title 40 CFR Part 60, Subpart Cf, respectively. The Emission Guidelines established under Subpart Cf apply to all existing municipal solid waste (MSW) landfills (i.e. those that commenced construction, reconstruction, or modification on or before July 17, 2014 and accepted waste at any time after November 8, 1987). Section 111(d) of the Clean Air Act (CAA) requires that states submit a plan establishing performance standards for existing sources within nine months of EPA's adoption of the emission guidelines.

State plans must contain specific information and legal mechanisms necessary to implement the Emission Guidelines. The requirements are:

- **40 CFR §60.24(a)** - Identification of enforceable State mechanisms selected by the State for implementing the Emission Guidelines (Chapter 2);
- **40 CFR §60.26(a)** - A demonstration of the State's legal authority to carry out the Section 111(d) State plan as submitted (Chapter 3);
- **40 CFR §60.25(a)** - An inventory of existing MSW landfills in the State affected by the Emission Guidelines. An existing landfill may be active (currently accepting waste or having additional capacity available to accept waste) or closed (no longer accepting waste nor having available capacity for future waste deposition) (Chapter 4);
- **40 CFR §60.25(a)** - An inventory of emissions from existing MSW landfills in the State that are affected by the Emission Guidelines (Chapter 5);
- **40 CFR §60.24(b)(1), 40 CFR §60.24(c), 40 CFR §60.24(f), & 40 CFR §60.33f** - Emission standards for existing MSW landfills in the State that are affected by the Emission Guidelines (Chapter 6);
- **40 CFR §60.34f** – Provisions for the operational standards of gas collection and control systems (Chapter 7);
- **40 CFR §60.38f(d)** - A State process for review and approval of site-specific gas collection and control system design plans (Chapter 8);
- **40 CFR §60.24(a), 40 CFR §60.24(e)(1), 40 CFR §60.32f, & 40 CFR §60.38f** - Compliance schedules and increments of progress (Chapter 9);
- **40 CFR §60.24(b)(2), 40 CFR §60.25(b), 40 CFR §60.35f, 40 CFR §60.37f, 40 CFR §60.38f, & 40 CFR §60.39f** - Testing, monitoring, recordkeeping, and reporting requirements (Chapter 10);
- **40 CFR §60.23(f)** - A record of public hearing(s) on the State plan (Chapter 11); and

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- **40 CFR §60.25(f)** - Provision for the annual State progress reports to EPA on implementation of the State plan (Chapter 12).

The Arizona Department of Environmental Quality (ADEQ) was required to submit a plan to EPA establishing performance standards for MSW landfills by May 30, 2017; however, EPA announced its intention to stay the rules in May of 2017 and the stay was published in the federal register on May 31, 2017. In January of 2018 EPA vacated the stay. In response, ADEQ is submitting this State plan to fulfill the EG requirements. After submittal of the State plan, EPA is required to either approve or disapprove the State Plan.

ADEQ submits this document to fulfill the above listed requirements for establishing performance standards for existing MSW landfills. The contents of this document only pertain to those MSW landfills permitted by or those areas for which ADEQ has planning authority within the State of Arizona.

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2 Enforceable State Mechanisms for Emission Guideline Implementation

This plan is submitted in accordance with 40 CFR Part 60 Subpart B, adoption and submittal of State Plan for Designated Facilities. The primary mechanism selected by ADEQ to implement the emission guidelines for MSW landfills under State jurisdiction is through incorporation by reference of 40 CFR Part 60, Subpart Cf and 40 CFR Part 60, Subpart XXX. The federal guidelines will be incorporated in two rules. Proposed revisions to Arizona Administrative Code R18-2-731 and R18-2-901(79) are included in Appendix A. Finalization of these proposed rules will meet the requirements of 40 CFR §60.24(a).

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3 Demonstration of Legal Authority

A. ADEQ has authority to adopt emission standards and compliance schedules applicable to MSW Landfills.

This authority is contained in Arizona Revised Statutes (ARS) § 49-425(A) that provides "The director shall adopt such rules as he determines are necessary and feasible to reduce the release into the atmosphere of air contaminants originating within the territorial limits of the state or any portion of it and shall adopt, modify, and amend reasonable standards for the quality of, and emissions into, the ambient air of the state for the prevention, control and abatement of air pollution. Additional standards shall be established for particulate matter emissions, sulfur dioxide emissions, other air contaminant emissions determined to be necessary and feasible for the prevention, control and abatement of air pollution. In fixing such ambient air quality standards, emission standards or standards of performance, the director shall give consideration but shall not be limited to the relevant factors prescribed by the clean air act."

ARS § 49-421 defines air contaminants as follows:

Air contaminants includes smoke, vapors, charred paper, dust, soot, grime, carbon, fumes, gases, sulfuric acid mist aerosols, aerosol droplets, odors, particulate matter, windborne matter, radioactive materials, or noxious chemicals, or any other material in the outdoor atmosphere."

B. ADEQ has the authority to enforce laws, regulations, standards and compliance schedules and seek injunctive relief with respect to MSW Landfills.

ADEQ is the primary enforcement agent of Title 49 of the Arizona Revised Statutes and rules (regulations) contained in Title 18, Chapter 2 of the Arizona Administrative Code. The Attorney General, by statute ADEQ's attorney, brings enforcement actions for ADEQ.

ARS §§ 49-460 through 463 provide the director of the Department of Environmental Quality with broad civil enforcement authority for violations of any State air pollution control article, any rule adopted pursuant to that article, or any requirement of a permit issued pursuant to that article. ARS §49-464 provides criminal penalties for certain types of conduct related to these violations.

ARS § 49-462 provides that the director may seek injunctive relief for violations of the State air pollution control statutes, including rules or permits adopted or issued to Article 2. The director may also seek injunctive relief if a person has violated or is violating an effective order of abatement or a person is creating an imminent and substantial endangerment to the public health or the environment because of a release of a harmful air contaminant.

ARS § 49-425 (C) further provides that ADEQ has a duty to enforce its rules: "The department shall enforce the rules adopted by the director."

C. ADEQ has authority to obtain information necessary to determine compliance.

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General authority comes from ARS § 49-425(A), which allows the director to "...adopt such rules as he determines are necessary and feasible to reduce the release into the atmosphere of air contaminants..."

For sources required to obtain Title V permits, ARS § 49-426(I) provides that those permits shall contain "Any other conditions that are necessary to assure compliance with this article and the clean air act, including the applicable implementation plan."

In addition, ARS § 49-460 allows the director, if the director has reasonable cause to believe there is a violation, to "...request in writing that such person produce all existing books, records and other documents evidencing tests, inspections or studies which may reasonably relate to compliance or noncompliance with rules adopted pursuant to this article."

D. ADEQ has authority to require record keeping, make inspections, and conduct tests.

General authority comes from ARS § 49-425(A) that allows the director to "...adopt such rules as he determines are necessary and feasible to reduce the release into the atmosphere of air contaminants..."

For sources required to obtain Title V permits, ARS § 49-426(I) provides that those permits shall contain, "...conditions that are necessary to assure compliance with this article and the clean air act, including the applicable implementation plan."

In addition, other statutes reinforce the inspection authority:

ARS § 49-432(B) provides that monitoring devices required to determine compliance "...shall be available for inspection by the director, or his deputies during all reasonable times."

ARS § 49-433 provide that special warrants may be issued by a magistrate to the Director and his deputies for the inspection of public or private, real or personal property for the purpose of air pollution control.

E. ADEQ has authority to require the use of monitors and require emission reports of owners or operators.

The general authority comes from ARS § 49-425(A), which allows the director to "...adopt such rules as he determines are necessary and feasible to reduce the release into the atmosphere of air contaminants..."

For sources required to obtain Title V permits, ARS § 49-426(I) provides that those permits shall contain any "...conditions that are necessary to assure compliance with this article and the clean air act, including the applicable implementation plan."

ARS § 49-422(A)(3) allows the department, under certain conditions, to require "...any source of air contaminants to monitor, sample or perform other studies to quantify emissions of air contaminants or levels of air pollution that may reasonably be attributable to that source..."

Finally, ARS § 432(B) provides: "The owner, lessee, or operator of a source under the jurisdiction of the department shall provide, install, maintain, and operate such air contaminant

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monitoring devices as are reasonable, necessary and required to determine compliance in a manner acceptable to the director, and shall supply monitoring information as directed in writing by the director. Such devices shall be available for inspection by the director, or his deputies during all reasonable times."

F. ADEQ has authority to make emissions data available to the public.

ARS § 49-432(C) provides that "The department shall make available to the public any records, reports or information obtained from any person pursuant to this chapter, including records, reports or information obtained or prepared by the director or a department employee, except...[when a trade secret or an ongoing criminal investigation is involved]."

ARS § 49-432(E) further provides that, regardless of whether it is confidential, the department must make available to the public, "The chemical constituents, concentrations and amounts of any emission of any air contaminant."

In addition, ARS § 39-121 provides that public records must be made available to the public during office hours.

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4 Arizona MSW Landfill Facility Inventory

40 CFR §60.25(a) requires that each state plan include an inventory of all designated facilities. ADEQ personnel reviewed the following resources in an effort to identify designated MSW landfills under ADEQ permitting authority:

- ADEQ Air Quality Division (AQD) permits and records
- ADEQ Waste Program Division (WPD) permits and records
- EPA 2014 National Emission Inventory
- EPA530-R-96-006, List of Municipal Solid Waste Landfills, June 1996
- EPA, 2016 Municipal Solid Waste New Source Performance Standards (NSPS) and Emission Guidelines (EG) Data Files[1]
- Direct phone contact with and surveys distributed to known MSW landfill owners and operators requesting operational data (Appendix B:)

ADEQ AQD staff reviewed all of the information provided by these resources and developed the list supplied in Table 1. This list includes open and closed municipal solid waste facilities above and below the 2.5 million Mg/yr and 2.5 million m^3 threshold that accepted municipal waste after November 8, 1987. ADEQ recognizes that this list will continue to develop as more information becomes available with the reporting requirements established in the revised state rule Arizona Administrative Code (AAC) R18-2-731. ADEQ commits to updating this list in subsequent annual state progress reports.

Table 1: MSW landfills under ADEQ authority affected by the Emission Guidelines

Facility	County	Status	Closure Year
Ash Fork LF	Yavapai	Closed	1998
Apache County Regional LF	Apache	Active	
Arizona Strip Community LF (Colorado City)	Mohave	Closed	1999
Artesia LF	Graham	Closed	1994
Bagdad LF	Yavapai	Closed	1999
Benson LF	Cochise	Closed	1998
Bisbee LF	Cochise	Closed	1992
Black Canyon LF	Yavapai	Closed	1999

[1] https://www.epa.gov/stationary-sources-air-pollution/2016-municipal-solid-waste-new-source-performance-standards-nsps

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Facility	County	Status	Closure Year
Blue LF	Greenlee	Closed	2006
Buckhead Mesa MSWLF	Gila	Active	
Camp Verde LF	Yavapai	Closed	2001
Central MSWLF	Graham	Closed	1993
Cerbat MSWLF	Mohave	Active	
Cinder Lake LF	Coconino	Active	
City of Holbrook LF	Navajo	Closed	1995
Cochise County Eastern Regional LF	Cochise	Closed	2001
Cochise County Western Regional LF	Cochise	Active	
Copper Mountain LF	Yuma	Active	
Douglas LF	Cochise	Closed	1995
Duncan LF	Greenlee	Closed	
Eden LF	Graham	Closed	1994
Fort Thomas	Graham	Closed	1996
Graham County Regional LF	Graham	Active	
Grand Canyon National Park N Rim LF	Coconino	Closed	2002
Grand Canyon National Park S Rim LF	Coconino	Active	
Gray Wolf Regional LF	Yavapai	Active	
Huachuca City LF	Cochise	Active	
La Paz County Regional LF	La Paz	Active	
Lake Havasu City LF	Mohave	Active	
Littlefield LF	Mohave	Closed	1998
Loma Linda LF	Greenlee	Active	
Lone Pine LF	Navajo	Active	1999
Mohave Valley LF	Mohave	Active	
Page LF	Coconino	Closed	2000
Painted Desert LF	Navajo	Active	
Prescott Valley LF	Yavapai	Closed	2002
Quartzsite LF	Yavapai	Closed	

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Facility	County	Status	Closure Year
Rio Rico MSWLF	Santa Cruz	Active	
Roll LF	Yuma	Closed	1994
Roosevelt LF	Gila	Closed	1991
Round Valley LF	Apache	Closed	
Russel Gulch LF	Gila	Active	
San Jose LF	Graham	Closed	1994
Sands Wash (South County) Landfill	Greenlee	Closed	1998
Seligman LF	Yavapai	Closed	1998
Sonoita-Elgin LF	Santa Cruz	Active	
South Yuma County LF	Yuma	Active	
Star Valley LF	Gila	Closed	1999
Stone Forest Industries	Apache		
St. Johns LF	Apache	Closed	1997
Sundog Ranch LF	Yavapai	Closed	1998
Tonto Basin	Gila	Closed	1990
Town of Fredonia	Coconino	Closed	1998
Miami Municipal LF	Gila	Closed	1995
Town of Patagonia LF	Santa Cruz	Active	
Amado-Tubac LF	Santa Cruz	Closed	1999
U.S. Army Yuma Proving Ground	Yuma	Active	
Williams LF	Coconino	Closed	1992
Winslow LF	Coconino	Closed	2000
Young LF (Pleasant Valley)	Gila	Closed	1992

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5 Arizona MSW Landfill Emission Inventory

40 CFR §60.25(a) requires that each plan include an inventory of all designated facilities including emissions data for the designated pollutants.

Where adequate data was available, ADEQ estimated 2017 NMOC emissions from MSW landfills (Table 2). NMOC emissions were calculated following Tier 1, 2, or 3 procedures using the Landfill Gas Emissions Model (LandGEM), version 3.02. Unless facility records reported current Tier 2 or Tier 3 results, the following default parameters, as specified by the NSPS and Emission Guidelines for determining CAA applicability, were used for facility emission estimation:

- Methane generation rate, k = 0.02 /yr
- Potential methane generation capacity, L_o = 170 m^3/Mg
- NMOC concentration = 4,000 ppmv as hexane
- Methane Content = 50% by volume

NMOC emission estimations derived from the parameters presented above result in conservatively high emissions estimates as compared to actual facility emission rates. However, the above listed parameters represent those established by EPA for facility screening procedures and are therefore utilized for the emissions estimated in this plan, except where facility reported Tier 2 or Tier 3 values exist. Where current Tier 2 or Tier 3 results were available for a facility, the above listed parameters were replaced with site-specific data.

Whenever possible, ADEQ utilized facility reported annual solid waste acceptance rates; however, not all facilities had complete records of annual waste acceptance. In those instances of incomplete records, ADEQ utilized the following gap filling techniques, in order of preference:

1. If the facility reported an average annual waste acceptance rate, this was used for all years; otherwise,
2. If the facility reported >15 years of waste acceptance records, the average annual acceptance rate from reported years was assumed for years that were not reported;
3. If the facility reported <15 years of waste acceptance records and reported a maximum daily acceptance rate, the maximum daily acceptance rate was converted to an annual value and assumed for all unreported years;
4. If the facility reported <15 years of waste acceptance records and reported current waste in place (WIP), the reported annual acceptance rates were summed and

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subtracted from the total WIP and the remaining total was evenly divided amongst unreported years[2]; and finally,

5. If the facility reported <15 years of waste acceptance records and no other information, the average annual acceptance rate from reported years was assumed for years that were not reported.

For those facilities that reported waste acceptance rates as a volume, ADEQ utilized the EPA's volume-to-weight conversion factors for small and large MSW landfills[3]. For any facility with a design capacity < 5,000,000 cubic yards, ADEQ assumed a volume-to-weight conversion factor of 1,500 lb/yd^3. For any facility with a design capacity > 5,000,000 cubic yards, ADEQ assumed a volume-to-weight conversion factor of 2,000 lb/yd^3.

For all facilities listed in Table 2 that do not have emission estimates reported, ADEQ did not estimate NMOC emissions as not enough information was available. ADEQ believes that it undertook all steps that are "reasonable and practical"[4] to obtain emissions data and estimate NMOC emissions for the development of this plan. ADEQ recognizes that this list will continue to develop as more information becomes available with the reporting requirements established in the revised state rule AAC R18-2-731. As this information becomes available, ADEQ commits to updating facility emission estimates and submitting in subsequent annual state progress reports.

Finally, NMOC emissions estimates provided in Table 2 should not be considered final for any permitting purposes. These estimates are provided to comply with the requirements of 40 CFR §60.25(a).

[2] ADEQ relied on WIP records as a low priority option since facilities reporting WIP required conversion of waste from volume-to-weight using factors reported in the April 2014, EPA Office of Resource Conservation and Recovery memorandum entitled Volume-to-Weight Conversion Factors. These are average factors developed from Minnesota landfill data and may have limited applicability in Arizona.

[3] https://www.epa.gov/sites/production/files/2016-04/documents/volume_to_weight_conversion_factors_memorandum_04192016_508fnl.pdf

[4] EPA established an understanding of "reasonable and practical" situations for emission data reporting for 111(d) plans in the January 27, 1997 memorandum entitled: Emission Inventories for Existing Municipal Solid Waste (MSW) Landfills with Design Capacities below 2.5 million Mg or 2.5 million m^3.

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Table 2: ADEQ estimated 2017 NMOC emissions

Facility	EPA EIS Facility ID	County	Status	Design Capacity (Mg or m^3)	2017 NMOC Emissions (Mg)
Landfill Facility Maximum Design Capacity ≥ 2.5 million Mg or ≥ 2.5 million m^3					
Cinder Lake LF	1115411	Coconino	Active	10,187,064 Mg	35.1
Cochise County Western Regional LF	1113811	Cochise	Active	4,299,305 Mg	13.3
Copper Mountain LF	7951311	Yuma	Active	54,500,000 m^3	45.8
Gray Wolf Regional LF[1]	1033811	Yavapai	Active	23,977,686 Mg	10.1
La Paz County Regional LF	944911	La Paz	Active	20,260,704 m^3	40.8
Mohave Valley LF	7950411	Mohave	Active	6,803,888 Mg	50.4
Painted Desert LF[2]	976811	Navajo	Active	18,818,182 Mg	53.2
South Yuma County LF	16323711	Yuma	Active	2,650,000 Mg	12.1
Landfill Facility Maximum Design Capacity < 2.5 million Mg or < 2.5 million m^3					
Ash Fork		Yavapai	Closed	15,300 m^3	0.9
Apache County Regional LF		Apache	Active	2,132,000 m^3	39.1
Arizona Strip Community LF (Colorado City)		Mohave	Active	141,590 m^3	2.8
Artesia LF		Graham	Closed	166,078 m^3	1.2
Bagdad LF		Yavapai	Closed	55,980 m^3	0.9
Benson LF		Cochise	Closed	88,690 m^3	4.7

Facility	EPA EIS Facility ID	County	Status	Design Capacity (Mg or m^3)	2017 NMOC Emissions (Mg)
Bisbee LF		Cochise	Closed	78,130 m^3	6.9
Black Canyon LF		Yavapai	Closed	15,300 m^3	5.7
Blue LF		Greenlee	Closed	1,840 m^3	NE
Buckhead Mesa LF		Gila	Active	1,061,717 m^3	37.2
Camp Verde LF		Yavapai	Closed	61,170 m^3	47.1
Central MSWLF		Graham	Closed	373,782 m^3	5.2
Cerbat MSWLF[3]		Mohave	Active	< 2,500,000 m^3	NE
City of Holbrook LF		Navajo	Closed	196,840 m^3	4.9
Cochise County Eastern Regional LF		Cochise	Closed	409,545 Mg	27.5
Douglas LF		Cochise	Closed	446,530 m^3	4.1
Eden LF		Graham	Closed	12,694 m^3	0.4
Duncan LF		Greenlee	Closed		NE
Fort Thomas		Graham	Closed	32,614 m^3	0.3
Graham County Regional LF		Graham	Active	1,860,000 Mg	83.5
Grand Canyon National Park N Rim LF		Coconino	Closed	41,900 m^3	4.5
Grand Canyon National Park S Rim LF		Coconino	Active	175,860 m^3	NE
Huachuca City LF		Cochise	Active	1,491,775 Mg	63.7
Lake Havasu City LF		Mohave	Active	1,269,280 m^3	NE
Littlefield LF		Mohave	Active	8,510 m^3	0.4
Loma Linda LF		Greenlee	Active	344,070 m^3	NE
Lone Pine LF		Navajo	Closed	257,670 m^3	37.7
Page LF		Coconino	Closed	1,004,680 m^3	8.2

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Facility	EPA EIS Facility ID	County	Status	Design Capacity (Mg or m^3)	2017 NMOC Emissions (Mg)
Prescott Valley LF		Yavapai	Closed	173,560 m^3	16.9
Quartzsite		La Paz	Closed	114,690 m^3	NE
Rio Rico MSWLF		Santa Cruz	Active	2,305,610 m^3	NE
Roll LF		Yuma	Closed	32,110 m^3	5.6
Roosevelt LF		Gila	Closed	114,683 m^3	4.5
Round Valley LF		Apache	Closed	172,690 m^3	NE
Russel Gulch LF		Gila	Active	2,020,836 m^3	50.9
San Jose LF		Gila	Closed	74,736 m^3	0.7
Sands Wash (South County)		Greenlee	Closed	107,040 m^3	0.7
Seligman LF		Yavapai	Closed	22,940 m^3	0.9
Sonoita-Elgin LF		Santa Cruz	Active	50,973 m^3	NE
Star Valley LF		Gila	Closed	99,400 m^3	5.7
Stone Forest Industries		Apache	Closed	841,060 m^3	NE
St. Johns LF		Apache	Closed	389,480 m^3	3.1
Sundog Ranch LF		Yavapai	Closed	1,228,409 Mg	51.7
Tonto Basin		Gila	Closed	152,911 m^3	5.6
Town of Fredonia		Coconino	Closed	256,700 m^3	1.3
Miami Municipal LF		Gila	Closed	58,060 Mg	2.9
Town of Patagonia LF		Santa Cruz	Active	17,490 m^3	NE
Amado-Tubac LF		Santa Cruz	Closed	21,408 m^3	1.7
U.S. Army Yuma Proving Ground		Yuma	Active	966,302 Mg	18.9
Williams LF		Coconino	Closed	253,832 m^3	4.3

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Facility	EPA EIS Facility ID	County	Status	Design Capacity (Mg or m^3)	2017 NMOC Emissions (Mg)
Winslow LF		Navajo	Closed	573,450 m^3	18.3
Young LF (Pleasant Valley)		Gila	Closed	7,646 m^3	0.3

Landfills with a maximum design capacity < 2.5 million Megagrams or 2.5 million cubic meters do not require a EPA EIS Facility ID
NE = Not estimated due to incomplete information
[1] Design capacity obtained from EPA's 2016 GHG modeling information: https://www.epa.gov/stationary-sources-air-pollution/2016-municipal-solid-waste-new-source-performance-standards-nsps
[2] Painted Desert Landfill installed a GCCS in 2009. LandGEM calculated uncontrolled emissions (200.8 Mg/yr) were controlled using the AP-42 Chapter 2.4.4.2 Equation #5 (draft 10/2008). ADEQ assumed a collection efficiency of 75% and control efficiency of 98%.
[3] Cerbat Landfill last reported design capacity was 1,820,000 Mg, in 2006. The facility reports that it is still below the 2.5 million m^3 threshold, but is considering expansion in the near future. Design capacity values will be updated in future reports.

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6 Emission Standards for MSW Landfills

Pursuant to 40 CFR §60.24(a), State plans must include emission standards for municipal solid waste landfills which are no less stringent than the corresponding emission guidelines established by the Administrator in 40 CFR §60.33f.

ADEQ's rule establishes emission guidelines that are equivalent to those codified in Subpart Cf. The state rule (Appendix A) incorporates by reference the federal standard and is applicable to all regulated sources under ADEQ permitting authority. Sources must comply with the emission standards specified in 40 CFR §60.33f, except for those facilities that meet the criteria established by the Administrator in 40 CFR §60.24(f).

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7 Operational standards for collection and control systems

Pursuant to 40 CFR §60.34f, State plans must include provisions for the operational standards of a gas collection and control system used to comply with the provisions of 40 CFR §60.33f(b) and (c).

ADEQ's rule establishes emission guidelines that are equivalent to those codified in Subpart Cf. The state rule (Appendix A) incorporates by reference the federal standard and is applicable to all regulated sources under ADEQ permitting authority. Sources must comply with the operational standards specified in 40 CFR §60.34f, except for those facilities that meet the criteria established by the Administrator in 40 CFR §60.24(f).

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8 Review Process for Control System Design Plans

ADEQ's plan incorporates by reference the federal emission guidelines and associated requirements for control system design plan review. As such, facilities subject to gas collection and control system (GCCS) are required to complete a site-specific GCCS Design Plan within one year of submission of an initial or subsequent NMOC emission rate report indicating an exceedance of the appropriate emission thresholds defined in 40 CFR §60.33f. Please refer to Section 9 of this plan for the NMOC emissions rate reporting and GCCS design plan and installation compliance schedule.

ADEQ will implement the following process for the review and approval of Design Plans:

1. On or before the deadline established in Chapter 9, each owner or operator of a MSW landfill that estimates NMOC emissions, in the initial or annual NMOC emissions rate report, equal to or exceeding the thresholds defined in 40 CFR §60.33f shall submit a copy of the site-specific Design Plan cover page that contains a professional engineer's seal to the Department for approval within one year. Within 90 days of receipt of the Design Plan cover page, the Department will notify the owner or operator if the design plan must be submitted in its entirety.

2. In the event that the Department determines a facility must install a collection and control system to achieve compliance with the emission guidelines for MSW landfill emissions established under 40 CFR §60.33f, the Department will notify the owner or operator of the landfill to submit an application for plan approval in accordance with the requirements of AAC R18-2-731.

3. The Design Plan shall contain a certification by a responsible official at the designated MSW landfill as to truth, accuracy, and completeness of the plan in accordance with the permitting requirements of the AAC R18-2-304(H). The certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

4. Upon receipt of a complete Design Plan, the Department will approve it, reject it, or request additional information within 90 days. The Department will provide notice, in writing, of the approval or disapproval of the Design Plan. If the owner or operator does not receive approval, rejection, or a request for additional information within 90 days, the owner or operator may continue with implementation of the Design Plan.

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9 Compliance Schedule & Increments of Progress

The state rule establishes the same compliance schedule as finalized in 40 CFR Part 60, Subpart Cf. Facilities shall comply with the schedule included below and as specified in 40 CFR §60.32f and 40 CFR §60.38f, unless the facility meets the exemption requirements established in 40 CFR §60.24(f) or is a closed landfill and meets the requirements of 40 CFR §60.31f.

Unless otherwise exempt, all existing MSW landfills subject to Subpart Cf must submit a design capacity report no later than 90 days after the effective date of EPA's state plan approval. Amended design capacity reports must be submitted within 90 days of an increase in the maximum design capacity of any landfill that meets or exceeds 2.5 million Mg and 2.5 million m^3. For any existing MSW landfills with a design capacity equal to or greater than 2.5 million Mg and 2.5 million m^3, an initial NMOC emission rate report submission is required no later than 90 days after the effective date of EPA's state plan approval. After which, NMOC emission rate reports must then be submitted annually or every 5 years (as determined in 40 CFR §60.38f(c)(3)). For owners or operators who choose to pursue Tier 4 testing, reports must be submitted annually, beginning within 30 days of completing fourth quarter monitoring.

When the initial or subsequent NMOC emission rate report submitted under this Chapter exceeds 34 Mg/yr for active landfills or 50 Mg/yr for closed landfills or Tier 4 surface emissions monitoring meets or exceeds a concentration of 500 ppm methane, all landfill owners then have 12 months to complete a design plan and submit the cover page (as specified in Chapter 8). If construction or installation of a collection and control system is necessary, contracts must be awarded and components purchased within six months of Department approval of the design plan. Initial on-site construction or installation of the collection and control systems shall begin within 12 months of Department approval of the design plan. Within 30 months after submission of an initial or subsequent NMOC emission report submitted under this Chapter or Tier 4 monitoring report that exceeds allowable limits, landfill owners must complete construction and installation of a gas collection and control system and be in compliance with 40 CFR §60.33f.

Within 180 days of the initial startup of an approved control system, an annual report for control system performance, including the results of an initial performance test of the control system as specified in 40 CFR §60.33f(c)(2), must be submitted to the Department. Annual reports should include all information specified in 40 CFR §60.38f(h). Subsequent annual reports are required within 12 months of the latest annual report submittal.

Table 3: Compliance Schedule for MSW landfill Emission Guidelines

Element	Schedule
State Plan submittal	[Placeholder for Submittal Date]
Design capacity report	≤ 90 days after the effective date of EPA's state plan approval

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Element	Schedule
Amended design capacity report	< 90 days after design capacity exceeds 2.5 million Mg and 2.5 million m^3
Initial NMOC emission rate report	≤ 90 days after the effective date of EPA's state plan approval
Annual or 5-year NMOC emission rate reports	≤ 12 (or 60) months after the submission of the initial or subsequent NMOC emission rate report
Initial Tier 4 emission monitoring report	< 30 days after completion of the fourth quarter of Tier 4 monitoring
Annual Tier 4 emission monitoring report	< 12 months after the submission of the initial or subsequent Tier 4 monitoring report
Control system design plan (completion and submittal of cover page)	< 12 months after submission of an initial or subsequent NMOC emission report or Tier 4 monitoring report that exceeds the relevant thresholds
Award contracts for gas collection and control system	< 6 months after Department approval of the control system design plan
Initiate construction or installation of gas collection and control system	< 12 months after Department approval of the control system design plan
Control system operational and in compliance	< 30 months after submission of an initial or subsequent NMOC emission report or Tier 4 monitoring report that exceeds the relevant thresholds
Initial performance test for MSW landfill control system	≤ 180 days after installation of collection and control system; results must be submitted to the Department within 60 days of completion
Annual report for the control system	< 12 months after the submission of the initial or subsequent annual report (initial reports must be submitted within 180 days of installation and startup of a collection and control system)

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10 Testing, Monitoring, Recordkeeping, and Reporting Requirements

The state rule conforms to those testing, monitoring, reporting, and recordkeeping requirements established in Subpart Cf. As such, the testing requirements established in 40 CFR §60.35f, monitoring requirements established in 40 CFR §60.37f, reporting requirements established in 40 CFR §60.38f, recordkeeping requirements established in 40 CFR §60.39f, and any associated requirements established in other sections of the emission guidelines apply to all ADEQ regulated MSW landfills as of the effective date of EPA's state plan approval.

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11 Records of Public Hearings

Prior to submitting this Section 111(d) Plan to EPA, ADEQ held public hearings for the purpose of receiving feedback on the proposed State Plan and the proposed rule revisions (AAC R18-2-731 and AAC R18-2-901). Federal requirements for 111(d) State Plan public hearings and supporting information related to ADEQ's compliance with these requirements is included in Table 4.

As required by 40 CFR §60.23(f)(1), ADEQ certifies that the public hearing was held in accordance with the notice required in 40 CFR §60.23(d). Supporting information and documentation supplied in Table 4 and Appendix C illustrate ADEQ's compliance. ADEQ further commits to retaining, for a minimum of 2 years, a record of the above listed public hearing transcripts for public review.

Table 4: Federal requirements for 111(d) State Plan public hearings

CFR Citation	Requirement	Completion Date	Supporting Materials
40 CFR §60.23(c)(1)	Except as provided in paragraphs (c)(2) and (c)(3) of this section, the State shall, prior to the adoption of any plan or revision thereof, conduct one or more public hearings within the State on such plan or plan revision.	5/15/2017 [Placeholder for future Public Hearing]	Appendix C
40 CFR §60.23(d)	Any hearing required by paragraph (c) of this section shall be held only after reasonable notice. Notice shall be given at least 30 days prior to the date of such hearing and shall include:	4/14/2017 [Placeholder for future Public Notice]	Appendix C, pages C-2 to…[Placeholder for future Public Notice]

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CFR Citation	Requirement	Completion Date	Supporting Materials
40 CFR §60.23(d)(1)	Notification to the public by prominently advertising the date, time, and place of such hearing in each region affected	4/14/2017 [Placeholder for future Public Notice]	ADEQ provided electronic notice of the public hearing through publication on the State website and email distribution (page C-2 to C-3). ADEQ additionally published a public notice in the Arizona Republic newspaper on 4/13/2017 and 4/14/2017 (page C-4). [Placeholder for future Public Notice]
40 CFR §60.23(d)(2)	Availability, at the time of public announcement, of each proposed plan or revision thereof for public inspection in at least one location in each region to which it will apply	4/14/2017 [Placeholder for future Public Notice]	On 4/14/2017 ADEQ published a copy of the proposed 111(d) Plan on the ADEQ website and a hardcopy was available at the ADEQ office, located at: 1110 W Washington St., Phoenix, AZ 85007. [Placeholder for future Public Notice]
40 CFR §60.23(d)(3)	Notification to the Administrator	4/14/2017 [Placeholder for future Public Notice]	ADEQ provided notice to administrator representatives on 4/14/2017. [Placeholder for future Public Notice]
40 CFR §60.23(e)	The State shall prepare and retain, for a minimum of 2 years, a record of each hearing for inspection by any interested party. The record shall contain, as a minimum, a list of witnesses together with the text of each presentation	--	ADEQ commits to keeping a record of the hearing until at least [Placeholder for 2 years from future Public Hearing]. This record shall be available to the public upon request.

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CFR Citation	Requirement	Completion Date	Supporting Materials
40 CFR §60.23(f)(1)	The State shall submit with the plan or revision: Certification that each hearing required by paragraph (c) of this section was held in accordance with the notice required by paragraph (d) of this section	5/15/2017 [Placeholder for future Public Notice Certification]	ADEQ certifies that the public hearing held on 5/15/2017 was held in accordance with the notification required by 40 CFR §60.23(d). A notarized certification of the public hearing is provided on page C-5. [Placeholder for future Public Notice Certification]
40 CFR §60.23(f)(2)	The State shall submit with the plan or revision: A list of witnesses and their organizational affiliations, if any, appearing at the hearing and a brief written summary of each presentation or written submission.	N/A	ADEQ has provided a list of witnesses to the 5/15/2017 public hearing in pages C-6 to C-8. ADEQ additionally included a summary of and response to written comments received during the public hearing within the responsiveness summary provided in pages C-9 to C-10. [Placeholder for future Public Hearing Attendee List]

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12 Provisions for Annual State Progress Reports

ADEQ will submit to EPA, on an annual basis, a report which details the progress in the enforcement of the state plan. The first report will be submitted within one year of approval of the state plan and will include the following elements:

1. Enforcement actions initiated against designated facilities during the reporting period.
2. Identification of the achievement of any increment of progress required by the plan during the reporting period.
3. Identification of designated facilities that have ceased operation during the reporting period.
4. Submission of emission inventory data for designated facilities that were not in operation at the time of plan development but began operation during the reporting period.
5. Submission of additional data as necessary to update the information submitted in this plan or in the previous progress reports.
6. Submission of copies of technical reports on all performance testing conducted on designated facilities, complete with concurrently recorded process data.

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Appendix A: Proposed Revisions to Arizona Administrative Code R18-2-731 and R18-2-901(79)

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Waiver of Trade Examination Requirement for a Qualifying Party from Another State.

Authority for Waiver. In addition to the Registrar's authority in A.R.S. § 32-1122(E) to waive the examination requirement for a qualifying party in this state, the Registrar may waive the trade examination requirement for the qualifying party for a licensee in another state.

b. *Conditions for Waiver.* The Registrar may waive the trade examination requirement if records reflect that the qualifying party is currently or has previously been a qualifying party for a licensee in the other state in the same classification, or in a comparable classification, within the preceding five years.

2. *Extent of Waiver of Trade Examination Requirement for Any Qualifying Party. Waiver of Trade Examination Permitted.* The Registrar may waive the trade examination requirement with respect to the trade examination if:

a. A qualifying party for a license in this state meets the conditions for waiver in A.R.S. § 32-1122(E); or

b. A qualifying party for a license in another state meets the conditions for waiver in Section (E)(1) of this Rule.

E. Waiver of Experience Requirement in A.R.S. § 32-1122 based on Examination.

1. *Examination and Certification Cause for Waiver of Experience Requirement for a Qualifying Party.* By classification, the Registrar may administratively waive experience requirements, all or in part, based on:

a. The applicant's passing of an appropriate trade examination; or

b. Proof of successful completion of an acceptable and nationally recognized certification.

2. *Timeliness of Examination and Certification.*

a. An examination must have been passed not more than two years prior to application for consideration of waiver of experience.

b. A certification must be valid at the time of application to be considered for waiver of experience.

R4-9-119. ~~Reserved~~ Minimum Trade Experience Required for Licensing

A. Type of Trade Experience Prior To Licensure. For purposes of examining an applicant's trade experience dealing specifically with the type of construction, or its equivalent, for which the applicant is applying for a license, as required under A.R.S. § 32-1122(E):

1. The Registrar must accept the following as evidence of an applicant's trade experience:

a. Military service or training;

b. Diplomas or transcripts from accredited training programs; and

c. Completion of apprenticeships approved by the State of Arizona.

2. The Registrar must accept evidence of trade experience regardless of whether:

a. The applicant was licensed or working for a properly-licensed entity at the time the experience was obtained; or

b. The applicant was a minor at the time the experience was obtained.

3. The Registrar may also accept any evidence of an applicant's trade experience it deems appropriate to determine compliance with A.R.S. § 32-1122(E).

B. Nothing in this Rule prohibits the Registrar from enforcing the provisions of A.R.S. § 32-1122(D), or any other provision of Arizona law.

NOTICE OF PROPOSED RULEMAKING

TITLE 18. ENVIRONMENTAL QUALITY

CHAPTER 2. DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR POLLUTION CONTROL

[R18-36]

PREAMBLE

1. Article, Part, or Section Affected (as applicable)

Article, Part, or Section Affected (as applicable)	Rulemaking Action
R18-2-731	Amend
R18-2-901	Amend

2. Citations to the agency's statutory rulemaking authority to include the authorizing statute (general) and the implementing statute (specific):

Authorizing statute: A.R.S. §§ 49-104(A)(10), 49-404(A)

Implementing statute: A.R.S. § 49-425(A)

3. Citations to all related notices published in the *Register* as specified in R1-1-409(A) that pertain to the record of the proposed rule:

Notice of Rulemaking Docket Opening: 24 A.A.R. 514, March 9, 2018 (*in this issue*)

4. The agency's contact person who can answer questions about the rulemaking:

Name: Elias Toon
Address: Arizona Department of Environmental Quality
Air Quality Division, AQIP Section
1110 W. Washington St.
Phoenix, AZ 85007
Telephone: (602) 771-4665
Fax: (602) 771-2299
E-mail: Toon.Elias@azdeq.gov

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5. An agency's justification and reason why a rule should be made, amended, repealed or renumbered, to include an explanation about the rulemaking:

Summary.

The Arizona Department of Environmental Quality (ADEQ) is proposing to amend R18-2-731 and R18-2-901 to incorporate by reference new federal rules applicable to Municipal Solid Waste (MSW) landfills within the State of Arizona.

The purpose of this rulemaking is to reduce the amount of Nonmethane Organic Compound (NMOC) gas emissions from MSW landfills and provide an alternative site-specific emissions threshold methodology to demonstrate whether or not surface emissions are below a specific threshold. These changes are necessary in order for Arizona to retain its delegated authority from the U. S. Environmental Protection Agency (EPA) to implement and enforce New Source Performance Standards (NSPS) and Emissions Guidelines at MSW landfills within the State of Arizona and avoid a Federal Implementation Plan (FIP).

The rules will be part of a plan submitted to the EPA pursuant to Clean Air Act (CAA) Section 111(d).

Background.

Amendments to R18-2-731: EPA's Emissions Guidelines for MSW Landfills that Ceased Construction, Reconstruction or Modification on or before July 18, 2014

ADEQ is amending R18-2-731 to incorporate by reference EPA's most recent emissions guidelines for MSW landfills.

Pursuant to Section 111 of the CAA, EPA promulgated Emissions Guidelines for existing MSW landfills on March 12, 1996, and subsequently amended them in 1998, 1999, and 2000, to make technical corrections and clarifications.

On July 17, 2014, EPA issued an Advance Notice of Proposed Rulemaking (ANPRM) to request public input on controls and practices that could further reduce emissions from existing MSW landfills and to determine if changes to the Emission Guidelines were appropriate.

On August 29, 2016, EPA updated and finalized the Emission Guidelines for existing MSW landfills, codified in 40 CFR Part 60, Subpart Cf (see 81 FR 59275). EPA reviewed the Emission Guidelines for MSW landfills that accepted waste after November 8, 1987, and commenced construction, reconstruction or modification on or before July 17, 2014. This action will result in additional reductions in landfill emissions, including methane, by lowering the NMOC emissions threshold at which a landfill must install controls from 50 megagrams per year (Mg/yr) to 34 Mg/yr. This action also provided an alternative site-specific emissions threshold methodology, referred to as "Tier 4," to determine when a landfill must install and operate a Gas Collection and Control System (GCCS). The final rule became effective on October 28, 2016.

Landfills that close on or before September 27, 2017 will continue to be subject to the NMOC emissions threshold of 50 Mg/yr for determining when controls must be installed or can be removed. Pursuant to CAA Section 111(d), states must submit a state plan implementing the new guideline no later than May 30, 2017 in order to avoid a FIP issued by EPA. ADEQ will include the amended version of R18-2-731 in its state plan submitted to EPA.

Amendments to R18-2-901: EPA's New Source Performance Standards for MSW Landfills that Commence Construction, Reconstruction or Modification after July 17, 2014

Along with the amendments to R18-2-731, ADEQ is also amending R18-2-901 to incorporate by reference EPA's most recent New Source Performance Standards (NSPS) for MSW landfills.

Pursuant to Section 111 of the CAA, EPA must review NSPS, and if appropriate, revise standards of performance for new MSW landfills at least every eight years.

On July 17, 2014, EPA proposed a new NSPS based on its ongoing review. On August 29, 2016, EPA finalized the new NSPS, now codified at 40 CFR Part 60, Subpart XXX, which updated the standards of performance for MSW landfills that commence construction, reconstruction or modifications after July 17, 2014 (see 81 FR 59331). This action, too, will result in additional emissions reductions at landfills by lowering the emissions threshold at which a landfill must install controls from 50 megagrams per year (Mg/yr.) to 34 Mg/yr. This action also provided an alternative site specific emissions threshold methodology, referred to as "Tier 4," to determine when a landfill must install and operate a Gas Collection and Control System (GCCS). The final rule became effective on October 28, 2016.

EPA promulgated the new Emissions Guidelines and NSPS simultaneously to update NMOC emissions standards for both new and existing landfills. ADEQ will also incorporate by reference these new federal regulations at the same time in order to streamline the rulemaking process and ensure Arizona will retain its delegated authority from the EPA to implement and enforce NSPS and Emissions Guidelines at MSW landfills within the State of Arizona.

Regulatory Requirements.

To satisfy CAA requirements under Section 111(d), ADEQ must develop and submit to EPA a plan within nine months to provide for:

1. Established standards of performance for any existing source for any air pollutant;
   (i) for which air quality criteria have not been issued or which is not included on a list published under section 108(a) [or emitted form a source category which is regulated under section 112] [or 112(b)] but
   (ii) to which a standard of performance under this section would apply if such existing sources were a new source, and;
2. The implementation and enforcement of such standards of performance.

As part of the 111(d) plan and in order to provide a successful strategy that will bring MSW landfills within Arizona into compliance with federal law, ADEQ will submit these rules to EPA for approval, making them enforceable under State law.

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6. A reference to any study relevant to the rule that the agency reviewed and proposes either to rely on or not to rely on in its evaluation of or justification for the rule, where the public may obtain or review each study, all data underlying each study, and any analysis of each study and other supporting material:

Studies relevant to this rulemaking can be located by referring to the Federal Register for each Subpart to be incorporated by reference. (Refer to the notice at 81 FR 59275 for the Emission Guidelines and the notice at 81 FR 59331 for the New Source Performance Standards). Copies of the Federal Register are available online at:
https://www.gpo.gov/fdsys/browse/collectionCfr.action?collectionCode=CFR

7. A showing of good cause why the rulemaking is necessary to promote a statewide interest if the rulemaking will diminish a previous grant of authority of a political subdivision of this state:

This proposed rulemaking does not diminish a previous grant of authority of a political subdivision of this state.

8. The preliminary summary of the economic, small business, and consumer impact:

The following discussion addresses each of the elements required for an Economic, Small Business, and Consumer Impact Statement (EIS) under A.R.S. §41-1055.

An identification of the rulemaking.

The rulemaking addressed by this EIS consists of amendments to R18-2-731 and R18-2-901 to incorporate by reference new federal standards for NMOC gas emissions from new and existing MSW landfills. The purpose of these amendments is to bring MSW landfills within the State of Arizona into compliance with new federal air quality standards for NMOC emissions.

The impact of the new federal air quality standards of NMOC gas emissions may require the owners and operators of MSW landfills to install gas control equipment in order to comply with new emissions limits. The lower emissions limits may result in compliance costs for some MSW landfills and minor administrative costs for ADEQ. It is important to note that if the state rulemaking does not occur, the same costs would still apply and be enforced by EPA instead of ADEQ via the Federal Implementation Plan (FIP).

The remainder of the changes are procedural or technical in nature and should have at most a trivial economic impact on the agency, businesses or consumers.

An identification of the persons who will be directly affected by, bear the cost of or directly benefit from the rule making.

The persons who will be directly affected by and bear the costs of this rulemaking are the owners and operators of MSW landfills within the State of Arizona. ADEQ has identified four MSW landfills, Cinder Lake, La Paz County, Mohave Valley, and Copper Mountain that may be required to install new gas control equipment.

The persons who will benefit from this rulemaking are the residents of Arizona, as well as the employees of MSW landfills, due to the improved air quality that will result from this rulemaking and the corresponding control technology MSW landfills may be implementing to lessen NMOC emissions.

A cost benefit analysis of the following:

(a) The probable costs and benefits to the implementing agency or other agencies directly affected by the implementation and enforcement of the rule making.

ADEQ estimates that the current number of full-time employees assigned in the Permits and Compliance Sections of the Air Quality Division at ADEQ are adequate to implement and enforce the NSPS and Emissions Guidelines for MSW landfills in Arizona. The costs of the rules to the implementing agency will therefore be minimal.

Furthermore, permits for MSW landfills are revised every five years, with minor revisions occurring periodically (as part of CAA Title V permitting requirements). Under A.A.C. R18-2-301(2) and R18-2-326(B)(1)(a), the permit applicant—in this case, MSW landfills—will ultimately be required to reimburse ADEQ for the cost of revisions as part of permit fees.

ADEQ has permitting, enforcement, and compliance jurisdiction for most MSW landfill emissions in Arizona. Maricopa County Air Quality Department (MCAQD) is conducting its own rulemaking for landfills that fall under its jurisdiction. Therefore, the costs and benefits will be similar in Maricopa County.

(b) The probable costs and benefits to a political subdivision of this state directly affected by the implementation and enforcement of the rule making.

The rules that are the subject of this preamble and EIS are necessary to comply with federal requirements under Section 111(d) of the CAA. ADEQ estimates there are currently 13 MSW landfills within its jurisdiction. Based on estimated emissions and landfill size, ADEQ has identified three publicly owned MSW landfills that may require installation of a gas control system including Cinder Lake Landfill, La Paz County Landfill, and Mohave Valley Landfill. The national average cost to purchase and install a gas control system is approximately $940,000.

The new NSPS and Emissions Guidelines are expected to significantly reduce emissions of landfill gas and its components, which include methane, volatile organic compounds (VOCs), and hazardous air pollutants (HAPs). The EPA expects that the reduced emissions will result in improvements in air quality and lessen the potential for health effects associated with exposure to air pollution related emissions, and result in climate benefits due to reductions of methane.

ADEQ will also avoid the issuance of a FIP by the EPA under Section 111(d) of the CAA. A FIP would likely require more strict emission limits and controls for MSW landfills located in Arizona. Adoption of these rules will also allow Arizona to retain its delegated authority from the EPA to implement and enforce NSPS and Emissions Guidelines at MSW landfills within the State of Arizona.

(c) The probable costs and benefits to businesses directly affected by the rule making, including any anticipated effect on the revenues or payroll expenditures of employers who are subject to the rule making.

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The rules that are the subject of this preamble and EIS are necessary to comply with federal requirements under Section 111(d) of the CAA. ADEQ estimates there are currently five privately owned MSW landfills within its jurisdiction. Based on estimated emissions and landfill size, ADEQ has identified one MSW landfill, Copper Mountain Landfill, which may require installation of a gas control system. The national average cost to purchase and install a gas control system is approximately $940,000.00.

The new NSPS and Emissions Guidelines are expected to significantly reduce emissions of landfill gas and its components, which include methane, volatile organic compounds (VOCs), and hazardous air pollutants (HAPs). The EPA expects that the reduced emissions will result in improvements in air quality and lessen the potential for health effects associated with exposure to air pollution related emissions, and result in climate benefits due to reductions of methane.

ADEQ will also avoid the issuance of a FIP by the EPA under Section 111(d) of the CAA. A FIP would likely require more strict emission limits and controls for MSW landfills located in Arizona. Adoption of these rules will also allow Arizona to retain its delegated authority from the EPA to implement and enforce NSPS and Emissions Guidelines at MSW landfills within the State of Arizona.

A general description of the probable impact on private and public employment in businesses, agencies and political subdivisions of this state directly affected by the rulemaking.

ADEQ anticipates that employment impacts will be minor. ADEQ does not expect short- or long-term employment, production, or industrial growth in Arizona to be negatively impacted by this rulemaking. Furthermore, no sources are expected to close from the implementation of this rulemaking.

A statement of the probable impact of the rulemaking on small businesses.

(a) An identification of the small businesses subject to the rulemaking.

Under A.R.S. § 41-1001(21) "Small business" means a concern, including its affiliates, which is [1] independently owned and operated, which is [2] not dominant in its field and which [3] employs fewer than one hundred full-time employees or which had gross annual receipts of less than four million dollars in its last fiscal year.

None of the MSW landfills within ADEQ's jurisdiction qualify as a small business.

(b) The administrative and other costs required for compliance with the rule making.

Not Applicable

(c) A description of the methods that the agency may use to reduce the impact on small businesses.

Not Applicable

(d) The probable cost and benefit to private persons and consumers who are directly affected by the rule making.

Not Applicable

A statement of the probable effect on state revenues.

Since any costs associated with the rulemaking will be recoverable through air quality permit fees, there will be no net effect on state revenues.

A description of any less intrusive or less costly alternative methods of achieving the purpose of the rule making.

ADEQ was not able to identify any less intrusive or costly alternative methods for achieving the purpose of the rulemaking—compliance with the federal NSPS and Emissions Guidelines for MSW landfills. The MSW landfills are the primary source of emissions and are responsible for installing adequate control technologies that will bring MSW landfills into compliance.

A description of any data on which a rule is based with a detailed explanation of how the data was obtained and why the data is acceptable data. An agency advocating that any data is acceptable data has the burden of proving that the data is acceptable. For the purposes of this paragraph, "acceptable data" means empirical, replicable and testable data as evidenced in supporting documentation, statistics, reports, studies or research.

All data on which the MSW landfill rules are based can be located by referring to the Federal Register citations for each Subpart to be incorporated by reference. (Refer to the notice at 81 FR 59275 for the Emission Guidelines and the notice at 81 FR 59331 for the New Source Performance Standards). Copies of the Federal Register are available online at: https://www.gpo.gov/fdsys/browse/collectionCfr.action?collectionCode=CFR

9. The agency's contact person who can answer questions about the economic, small business and consumer impact statement:

Name: Elias Toon
Address: Arizona Department of Environmental Quality
Air Quality Division, AQIP Section
1110 W. Washington St.
Phoenix, AZ 85007
Telephone: (602) 771-4665
Fax: (602) 771-2299
E-mail: Toon.Elias@azdeq.gov

10. The time, place, and nature of the proceedings to make, amend, repeal, or renumber the rule, or if no proceeding is scheduled, where, when, and how persons may request an oral proceeding on the proposed rule:

ADEQ will conduct a public hearing to receive feedback, comments, questions, and concerns on the proposed rulemaking. All interested parties may attend. ADEQ will respond to comments in a summary that is submitted with the 111(d) plan, which will include the rules that are the subject of this rulemaking.

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The public comment period for this rulemaking will take place between: March 16, 2018 – April 16, 2018.

The public hearing for the rules will be conducted on: Monday, April 16, 2018 at 1:00 p.m.

Location: Arizona Department of Environmental Quality
1110 W. Washington St., Room 3100A
Phoenix, AZ 85007

11. All agencies shall list other matters prescribed by statute applicable to the specific agency or to any specific rule or class of rules. Additionally, an agency subject to Council review under A.R.S. §§ 41-1052 and 41-1055 shall respond to the following questions:

There are no matters prescribed by statute applicable specifically to ADEQ or this specific rulemaking.

a. Whether the rule requires a permit, whether a general permit is used and if not, the reasons why a general permit is not used:

These rules will be included in CAA Title V permit revisions for any applicable MSW landfill that falls under ADEQ's jurisdiction. Therefore, these rules do not inherently require a permit, but are rather incorporated into a permit that is already independently required.

b. Whether a federal law is applicable to the subject of the rule, whether the rule is more stringent than federal law and if so, citation to the statutory authority to exceed the requirements of federal law:

The rules will help Arizona landfills comply with the federal Clean Air Act, Title I, Section 111. The rules are no more stringent than federal law. The rules incorporate federal standards by reference. These changes are necessary in order for Arizona to retain its delegated authority from the EPA to implement and enforce NSPS and Emissions Guidelines at MSW landfills within the State of Arizona.

c. Whether a person submitted an analysis to the agency that compares the rule's impact of the competitiveness of business in this state to the impact on business in other states:

No person or persons submitted an analysis to ADEQ.

12. A list of any incorporated by reference material as specified in A.R.S. § 41-1028 and its location in the rules:

New Incorporations by Reference	Location
40 CFR 60, Subpart Cf	R18-2-731
40 CFR 60, Subpart XXX	R18-2-901

13. The full text of the rules follows:

TITLE 18. ENVIRONMENTAL QUALITY

CHAPTER 2. DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR POLLUTION CONTROL

ARTICLE 7. EXISTING STATIONARY SOURCE PERFORMANCE STANDARDS

Section
R18-2-731. Standards of Performance for Existing Municipal Solid Waste Landfills

ARTICLE 9. NEW SOURCE PERFORMANCE STANDARDS

Section
R18-2-901. Standards of Performance for New Stationary Sources

ARTICLE 7. EXISTING STATIONARY SOURCE PERFORMANCE STANDARDS

R18-2-731. Standards of Performance for Existing Municipal Solid Waste Landfills

A. This Section applies to each municipal solid waste landfill (MSW landfill) at which:
1. Construction, reconstruction, or modification began on or before ~~May 30, 1991~~ July 17, 2014; and
2. Waste was accepted at any time since November 8, 1987, or additional design capacity is available for future waste deposition.

B. For the purposes of this Section, "Municipal solid waste landfill or MSW landfill" means an entire disposal facility in a contiguous geographical space where household waste is placed in or on land. An MSW landfill may also receive other types of RCRA (Resource Conservation and Recovery Act) Subtitle D wastes such as commercial solid waste, non hazardous sludge, conditionally exempt small quantity generator waste, and industrial solid waste. Portions of an MSW landfill may be separated by access roads. An MSW landfill may be publicly or privately owned.

C. MSW landfills covered by this Section shall comply with 40 CFR 60, Subpart ~~WWW, as modified by this subsection~~Cf, effective as of the date of EPA approval of the state plan under section 111(d) of the Act 40 CFR 60, Subpart WWW, "Standards of Performance for Municipal Solid Waste Landfills," ~~is incorporated by reference in R18-2-901~~ will remain in effect until Arizona's state plan implementing Subpart Cf is approved by EPA. 40 CFR 60, Subpart Cf "Emissions Guidelines and Compliance Times for Municipal Solid Waste Landfills," as adopted as of October 28, 2016 (and no future amendments) is hereby incorporated by reference as applicable requirements. MSW landfills may meet the requirements of Subpart Cf by complying with 40 CFR 60, Subpart XXX. 40 CFR 60, Subpart XXX "Standards of Performance for Municipal Solid Waste Landfills that Commenced Construction, Reconstruction or Modification After July 17, 2014," is incorporated by reference in R18-2-901.

~~1. Definitions. In addition to the definitions in 40 CFR 60.751, "Administrator" means the Director of the Department of Environmental Quality.~~

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2. ~~Reporting. Each MSW landfill shall comply with the reporting requirements of 40 CFR 60.757. The initial design capacity report and initial NMOC emission rate report shall be due 90 days after the effective date of this rule.~~
3. ~~Design plan. An MSW landfill that is required to install a collection and control system shall submit a design plan for the system to the Director with a Standard Permit Application Form not later than 12 months after it submitted or should have submitted a NMOC emission rate report indicating emissions greater than 50 Mg per year. The design plan shall be prepared by a professional engineer registered in Arizona. The Director shall not approve the design plan if it does not meet the requirements of 40 CFR 60.752(b)(2)(ii).~~
4. ~~System installation. An MSW landfill that is required to install a collection and control system shall complete installation of the system not later than 30 months after the effective date of this rule.~~
5. ~~An MSW landfill that first becomes subject to the collection and control system requirement after the effective date of this rule shall submit a design plan for the system to the Director not later than 12 months after it submitted or should have submitted an NMOC emission rate report indicating emissions greater than 50 Mg per year.~~

ARTICLE 9. NEW SOURCE PERFORMANCE STANDARDS

R18-2-901. Standards of Performance for New Stationary Sources

Except as provided in R18-2-902 through R18-2-905, the following subparts of 40 CFR 60, New Source Performance Standards (NSPS) and all accompanying appendices, adopted as of June 28, 2013, unless otherwise specified, and no future editions or amendments, are incorporated by reference as applicable requirements. These standards are on file with the Department and shall be applied by the Department. These standards can be obtained from the U.S. Government Printing Office, Superintendent of Documents, bookstore.gpo.gov, Mail Stop: SSOP IDCC-SSOM, Washington, D.C. 20402-9328.

1. Subpart A - General Provisions.
2. Subpart D - Standards of Performance for Fossil-Fuel- Fired Steam Generators for Which Construction is Commenced After August 17, 1971.
3. Subpart Da - Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978.
4. Subpart Db - Standards of Performance for Industrial- Commercial-Institutional Steam Generating Units.
5. Subpart Dc - Standards of Performance for Small Industrial- Commercial-Institutional Steam Generating Units.
6. Subpart E - Standards of Performance for Incinerators.
7. Subpart Ea - Standards of Performance for Municipal Waste Combustors for Which Construction is Commenced after December 20, 1989 and on or Before September 20, 1994.
8. Subpart Eb - Standards of Performance for Large Municipal Waste Combustors for Which Construction is Commenced after September 20, 1994 or for Which Modification or Reconstruction is Commenced After June 19, 1996.
9. Subpart Ec - Standards of Performance for Hospital/Medical/ Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996.
10. Subpart F - Standards of Performance for Portland Cement Plants.
11. Subpart G - Standards of Performance for Nitric Acid Plants.
12. Subpart Ga - Standards of Performance for Nitric Acid Plants for which Construction, Reconstruction, or Modification Commenced after October 14, 2011.
13. Subpart H - Standards of Performance for Sulfuric Acid Plants.
14. Subpart I - Standards of Performance for Hot Mix Asphalt Facilities.
15. Subpart J - Standards of Performance for Petroleum Refineries.
16. Subpart Ja - Standards of Performance for Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007.
17. Subpart K - Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978.
18. Subpart Ka - Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984.
19. Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984.
20. Subpart L - Standards of Performance for Secondary Lead Smelters.
21. Subpart M - Standards of Performance for Secondary Brass and Bronze Production Plants.
22. Subpart N - Standards of Performance for Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973.
23. Subpart Na - Standards of Performance for Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983.
24. Subpart O - Standards of Performance for Sewage Treatment Plants.
25. Subpart P - Standards of Performance for Primary Copper Smelters.
26. Subpart Q - Standards of Performance for Primary Zinc Smelters.
27. Subpart R - Standards of Performance for Primary Lead Smelters.
28. Subpart S - Standards of Performance for Primary Aluminum Reduction Plants.
29. Subpart T - Standards of Performance for Phosphate Fertilizer Industry: Wet-Process Phosphoric Acid Plants.
30. Subpart U - Standards of Performance for Phosphate Fertilizer Industry: Superphosphoric Acid Plants.
31. Subpart V - Standards of Performance for Phosphate Fertilizer Industry: Diammonium Phosphate Plants.
32. Subpart W - Standards of Performance for Phosphate Fertilizer Industry: Triple Superphosphate Plants.
33. Subpart X - Standards of Performance for Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities.
34. Subpart Y - Standards of Performance for Coal Preparation Plants.

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35. Subpart Z - Standards of Performance for Ferroalloy Production Facilities.
36. Subpart AA - Standards of Performance for Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974, and On or Before August 17, 1983.
37. Subpart AAa - Standards of Pe rformance for Steel Plants: Ele ctric Arc Furnaces and Argon-O xygen Decarburization Vessels Constructed After August 7, 1983.
38. Subpart BB - Standards of Performance for Kraft Pulp Mills.
39. Subpart CC - Standards of Performance for Glass Manufacturing Plants.
40. Subpart DD - Standards of Performance for Grain Elevators.
41. Subpart EE - Standards of Performance for Surface Coating of Metal Furniture.
42. Subpart GG - Standards of Performance for Stationary Gas Turbines.
43. Subpart HH - Standards of Performance for Lime Manufacturing Plants.
44. Subpart KK - Standards of Performance for Lead-Acid Battery Manufacturing Plants.
45. Subpart LL - Standards of Performance for Metallic Mineral Processing Plants.
46. Subpart MM - Standards of Performance for Automobile and Light Duty Truck Surface Coating Operations.
47. Subpart NN - Standards of Performance for Phosphate Rock Plants.
48. Subpart PP - Standards of Performance for Ammonium Sulfate Manufacture.
49. Subpart QQ - Standards of Performance for Graphic Arts Industry: Publication Rotogravure Printing.
50. Subpart RR - Standards of Performance for Pressure Sensitive Tape and Label Surface Coating Operations.
51. Subpart SS - Standards of Performance for Industrial Surface Coating: Large Appliances.
52. Subpart TT - Standards of Performance for Metal Coil Surface Coating.
53. Subpart UU - Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture.
54. Subpart VV - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry.
55. Subpart VVa - Standards of Performance for Equipment Leaks o f VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced after November 7, 2006.
56. Subpart WW - Standards of Performance for Beverage Can Surface Coating Industry.
57. Subpart XX - Standards of Performance for Bulk Gasoline Terminals.
58. Subpart AAA - Standards of Performance for New Residential Wood Heaters.
59. Subpart BBB - Standards of Performance for Rubber Tire Manufacturing Industry.
60. Subpart DDD - Standards of Performance for Volatile Organic Compound (VOC) Emissions from the Polymer Manufacturing Industry.
61. Subpart FFF - Standards of Performance for Flexible Vinyl and Urethane Coating and Printing.
62. Subpart GGG - Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries.
63. Subpart GGGa - Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006.
64. Subpart HHH - Standards of Performance for Synthetic Fiber Production Facilities.
65. Subpart III - Standards of Performance for Volatile Organic Compound (VOC) Emissions from the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes.
66. Subpart JJJ - Standards of Performance for Petroleum Dry Cleaners.
67. Subpart KKK - Standards of Performance for Equipment Leaks of VOC from Onshore Natural Gas Processing Plants.
68. Subpart LLL - Standards of Performance for Onshore Natural Gas Processing; SO2 Emissions.
69. Subpart NNN - Standards of Performance for Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations.
70. Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants.
71. Subpart PPP - Standards of Performance for Wool Fiberglass Insulation Manufacturing Plants.
72. Subpart QQQ - Standards of Performance for VOC Emissions From Petroleum Refinery Wastewater Systems.
73. Subpart RRR - Standards of Performance for Volatile Organic Compound Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes.
74. Subpart SSS - Standards of Performance for Magnetic Tape Coating Facilities.
75. Subpart TTT - Standards of Performance for Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machin es.
76. Subpart UUU - Standards of Performance for Calciners and Dryers in Mineral Industries.
77. Subpart VVV - Standards of Performance for Polymeric Coating of Supporting Substrates Facilities.
78. Subpart WWW - Standards of Performance for Municipal Solid Waste Landfills.
79. Subpart XXX – Standards of Performance for Municipal Solid Waste Landfills that Commenced Construction, Reconstruction, or Modification After July 17, 2014. This subpart and all accompanying appendices are adopted as of October 28, 2016 (and no future amendments), and are incorporated by reference as applicable requirements.

80.~~79.~~ Subpart AAAA - Standards of Performance for Small Municipal Waste Combustion Units for Which Construction Is Commenced after August 30, 1999, or for Which Modification or Reconstruction Is Commenced after June 6, 2001.

81.~~80.~~ Subpart CCCC - Standards of Performance for Commercial and Industrial Solid Waste Incineration Units for Which Construction Is Commenced after November 30, 1999, or for Which Modification or Reconstruction Is C ommenced on or after June 1, 2001.

82.~~81.~~ Subpart EEEE - Standards of Performance for Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004, or for Which Modification or Reconstruction is Commenced on or After June 16, 2006.

83.~~82.~~ Subpart IIII - Standards of Performance for Stationary Compression Ignition Combustion Engines.

84.~~83.~~ Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines.

85.~~84.~~ Subpart KKKK - Standards of Performance for Stationary Combustion Turbines.

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86.~~85.~~Subpart LLLL - Standards of Performance for New Sewage Sludge Incineration Units.
87.~~86.~~Subpart OOOO - Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution.

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Appendix B: Municipal Solid Waste Owner Sample Survey

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Municipal Solid Waste Landfill Survey

Instructions:

- Please fill out the following questionnaire completely for every **active and closed** municipal solid waste landfill for which you are a responsible official.
- Use additional forms to provide information for multiple landfills or if additional space is needed for "Annual Waste Acceptance Rates" records.
- Specify the units of any values reported by marking the appropriate checkbox.
- Please return completed surveys by **February 10th, 2017**.
- Forms should be returned to: **Ryan Templeton**
  Air Quality Division, AQIP Section
  1110 W Washington St.
  Phoenix, AZ 85007
- If you have questions, please contact Ryan Templeton at (602) 771-4230 or rct@azdeq.gov.

Facility Name:			
Contact Name:		**Contact phone #:**	
Contact Email:			
Landfill Address or Description of Location:			
County:		**ZIP:**	
Date Facility Opened:		**Date Facility Closed:**	
Facility Waste Design Capacity:			**Units:** ☐ Megagrams ☐ Short Tons ☐ Cubic meters
Does the facility have capacity for future waste deposition?			☐ Yes ☐ No
Does the facility have records of waste accepted annually?			☐ Yes ☐ No

Annual Waste Acceptance Rates

Units: ☐ Megagrams/yr
☐ Short tons/yr

Year	Annual waste acceptance	Year	Annual waste acceptance

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Year	Annual waste acceptance	Year	Annual waste acceptance

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Appendix C: Documentation of the Public Participation Process[5]

[5] The documentation included in this section corresponds to the April 14, 2017 to May 15, 2017 public comment period and hearing. Documentation corresponding to the March 16, 2018 to April 16, 2018 public comment period and hearing will be included with the final plan submittal.

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Electronic Distribution of Public Hearing Announcement

Ryan C. Templeton

From: Arizona Department of Environmental Quality <AZDEQ@public.govdelivery.com>
Sent: Friday, April 14, 2017 8:01 AM
To: Ryan C. Templeton
Subject: PUBLIC NOTICE | 30-day Comment Period & Public Hearing I State Plan & Rule Revisions for Municipal Solid Waste Landfills

ADEQ Arizona Department of Environmental Quality

PUBLIC NOTICE

Dear Interested Party,

The Air Quality Division of the Arizona Department of Environmental Quality (ADEQ) welcomes comments on the proposed Clean Air Act Section 111(d) plan and amendments to R18-2-731 and R18-2-901, pertaining to municipal solid waste landfills.

Arizona proposes to submit a plan to EPA to establish standards of performance for landfills located within ADEQ's jurisdiction. The proposed revisions to R18-2-731 and R18-2-901 incorporate by reference new federal rules (codified at 40 CFR Part 60, Subpart Cf and 40 CFR Part 60, Subpart XXX).

View Public Notice/Related Documents >

Public Comment Period:
Apr. 14, 2017 - May 15, 2017

Public Hearing:
May 15, 2017 at 1:00 p.m.
1110 W. Washington St., Rm. 145
Phoenix, AZ 85007

Comments may be submitted as follows:
Email: rct@azdeq.gov
Fax: (602)-771-2299
Mail: (Must be postmarked or received by May 15, 2017)

ADEQ
Ryan Templeton
Air Quality Division, Air Quality Improvement Planning Section
1110 W. Washington St.
Phoenix, AZ 85007

Questions?

Ryan Templeton
Air Quality Improvement Planning Section
602-771-4230
rct@azdeq.gov

1

About ADEQ

Under the Environmental Quality Act of 1986, the Arizona State Legislature established the Arizona Department of Environmental Quality in 1987 as the state agency for protecting and enhancing public health and the environment of Arizona. For more information, visit http://www.azdeq.gov/.

ADEQ Arizona Department of Environmental Quality

QUESTIONS?
Contact Us

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This email was sent to templeton.ryan@azdeq.gov using GovDelivery, on behalf of: Arizona Department of Environmental Quality (ADEQ) · 1110 West Washington Street · Phoenix, AZ 85007 · 1-602-771-2300

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2

Newspaper Affidavit for Public Hearing

369266

THE ARIZONA REPUBLIC

PO Box 194, Phoenix, Arizona 85001-0194
Phone 1-602-444-7315 Fax 1-877-943-0443

STATE OF ARIZONA } SS.
COUNTY OF MARICOPA

Arizona Dept of Environmental Air Quality
1110 W. Washington St., 3415A-3
Phoenix, AZ 85007

I, being first duly sworn, upon oath deposes and says: That I am the legal clerk of the Arizona Republic, a newspaper of general circulation in the counties of Maricopa, Coconino, Pima and Pima, in the State of Arizona, published weekly at Phoenix, Arizona, and that the copy hereto attached is a true copy of the advertisement published in the said paper on the dates indicated.

Publication: Arizona Republic
Zone:
Ad number: 0008669846
PO Field: ADSPO12-023863-443
Published Date(s):
April 12 & 19, 2017

Sworn to before me this
10th day of May, 2017

Notary Public

AFFIDAVIT OF PUBLICATION

Public Hearing Certification

ADEQ
Arizona Department of Environmental Quality

Air Quality Division

Public Hearing Presiding Officer Certification

I, Brian Parkey, the designated Presiding Officer, do hereby certify that the proposed Arizona Municipal Solid Waste Clean Air Act 111(d) plan and Amendments to R18-2-731 and R18-2-901 public hearing held by the Arizona Department of Environmental Quality was conducted on May 15, 2017, at the Arizona Department of Environmental Quality, Conference Room 145, 1110 West Washington Street, Phoenix, Arizona, in accordance with public notice requirements by publication in *The Arizona Republic* beginning April 13, 2017. Furthermore, I do hereby certify that the public hearing was recorded from the opening of the public record through concluding remarks and adjournment, and the transcript provided contains a full, true, and correct record of the above-referenced public hearing.

Dated this 16th day of May 2017.

Brian Parkey

State of Arizona)
) ss.
County of Maricopa)

Subscribed and sworn to before me on this 16th day of May 2017.

TAWNYA COOK
Notary Public - Arizona
Maricopa County
My Comm. Expires Mar 3, 2020

Tawnya Cook
Notary Public

My commission expires: 3/3/2020

Public Hearing List of Attendees

ADEQ Arizona Department of Environmental Quality

Air Quality Division Sign-In Sheet

Please Sign In

SUBJECT: MSW LANDFILL PUBLIC HEARING DATE: 5/15/17

NAME	ORGANIZATION	PHONE	E-MAIL (primary method of contact)
1. MATT IVERS	ADEQ	602-771-6723	MIZ@AZDEQ.GOV
2. Ryan Templeton	ADEQ	602-771-4230	rct@azdeq.gov
3. Jack Kolopanis	WM	602-763-9225	jkolopanis@wm.com
4. Natalie Muilenberg	ADEQ	602-771-1089	nm3@azdeq.gov
5. Richard Sumner	MCAQD	602. 506. 1842	sumnerr@mail.maricopa.gov
6. Heather Krause	MCAQD	602 506 6731	hkrause@mail.maricopa.gov
7. JOHANNA M KUSPERT	MCAQD	602-506-6710	jkuspert@mail.maricopa.gov

Air Quality Division Sign-In Sheet – p 2 of 5

	NAME	ORGANIZATION	PHONE	E-MAIL
8.				
9.				
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11.				
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Air Quality Division Sign-In Sheet – p 3 of 5

	NAME	ORGANIZATION	PHONE	E-MAIL
22.	Matt Morales	Flagstaff (City)	928 213 2123	mmorales@flagstaffaz.gov
23.				
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Public Process Responsiveness Summary

ADEQ has made revisions to the *State Plan for Implementing the Municipal Solid Waste Landfill Emission Guidelines for Arizona* to revise grammatical and editorial errors. In addition, Chapter 11 and Appendix C were revised to provide documentation of ADEQ's public process. Finally, ADEQ received feedback from two stakeholders during the public comment period, lasting from April 14, 2017 to May 15, 2017. These written comments are summarized below and ADEQ has provided responses.

The oral proceeding on the proposed *State Plan for Implementing the Municipal Solid Waste Landfill Emission Guidelines for Arizona* was held on Monday, May 15, 2017, 1:00 p.m., at 1110 W. Washington St, Phoenix, AZ 85007. No oral comments were received during the public hearing.

Republic Services:

Republic Services provided ADEQ with an edited copy of the proposed plan, which included suggested changes to the language in Chapters 8-10. These changes are summarized below, with ADEQ's action or response.

Chapter 8:

1. Republic Services suggested changes to the language of the first paragraph and bullet #1 to clarify submittal requirements and the associated deadlines.

   ADEQ believes the suggested changes from Republic Services further clarified the requirements and deadlines for submittal of design plans and has updated the language of these portions of Chapter 8 to reflect this change.

2. Republic Services suggested the removal of bullet #2 in Chapter 8 of the proposed State Plan. This bullet outlined actions to be taken by the Department in the event that it determines the need for a collection and control system and reads:

   > *"In the event that the Department determines a facility must install a collection and control system to achieve compliance with the emission guidelines for MSW landfill emissions established under 40 CFR §60.33f, the Department will notify the owner or operator of the landfill to submit an application for plan approval in accordance with the requirements of AAC R18-2-731."*

   ADEQ has determined that inclusion of this statement is important for the establishment of a process for plan submission from facilities which fail to meet the reporting requirements of this rule due to limited, but potential scenarios. One example of when this scenario could arise is during ADEQ's review of NMOC emission rate reports that are incorrectly calculated by the facility and correction of this calculation during ADEQ review results in the facility exceeding the thresholds established in 40 CFR §60.33f. In this instance, ADEQ would notify the facility of the need to submit an

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application for plan approval and the process would continue as otherwise specified in Chapters 8 and 9 of this Plan.

As such, ADEQ has determined that bullet #2 in Chapter 8 should not be removed from the Plan.

3. Republic Services suggested the removal of the last sentence of bullet #4 in Chapter 8 of the proposed State plan. This sentence provides the owner or operator the ability to continue implementation of the Design Plan in the absence of a Department determination of its adequacy, following the 90 day review period, and reads:

   "If the owner or operator does not receive approval, rejection, or a request for additional information within 90 days, the owner or operator may continue with implementation of the Design Plan."

   The language proposed in ADEQ's State plan is consistent with 40 CFR §60.38f(d)(6):

   "If the Administrator does not approve or disapprove the design plan, or does not request that additional information be submitted within 90 days of receipt, then the owner or operator may continue with implementation of the design plan, recognizing they would be proceeding at their own risk."

   ADEQ continues to include the statement in question in the Plan in order to: 1) provide consistency between the State plan and federal rule, and 2) allow facilities the ability to implement their proposed design plan if action by the State is not taken. Given implementation time necessary for facilities to install GCCS and the timeline given in this plan and the federal rule for installation and operation, ADEQ feels it is necessary to retain this clause. This will allow adequate time for facility implementation of their proposed Design Plan.

Chapter 9:

Republic Services provided several suggestions to this chapter in order to clarify the language describing submittal timings and requirement applicability.

ADEQ made grammatical changes to the second and third paragraph of Chapter 9 and Table 3 in order to further clarify the language. These revisions result in no substantial changes to the content or intent of this section.

Chapter 10:

Republic Services provided several suggested revisions to this chapter in order to clarify the language describing submittal timing.

ADEQ edited this section to further clarify the language. These revisions result in no substantial changes to the content or intent of this section.

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Russell McCloud, Yuma County Supervisor

Mr. McCloud raised concerns regarding the dumping of California sewage waste in Arizona landfills and its effect on communities within a 2 mile radius of the landfills. Mr. McCloud further offered a suggestion for the remedying of this issue.

While ADEQ recognizes Mr. McCloud's concern, the scope of this proposed 111(d) Plan only extends to air quality concerns as it relates to control of NMOC and methane emissions. Therefore, ADEQ is unable to address Mr. McCloud's concerns within the scope of this plan.

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Regulatory Updates
March 2017
EPA Region 9

New Items!

1. **Mercury and Air Toxics Standards (MATS) Electronic Reporting Requirements** final rule was signed on 3/29/17. The EPA finalized portions of its proposal to streamline "e-reporting" in MATS. The final rule allows power plants to submit certain emissions reports as PDFs until July 1, 2018, while EPA works to put a single e-reporting system in place for MATS. The final rule also clarifies two mercury measurement quality assurance instructions. The EPA continues to review comments on the other issues that were part of the MATS e-reporting streamlining proposal. This action is published in the **Federal Register** on 4/6/17.

   More information: https://www.epa.gov/mats/regulatory-actions-final-mercury-and-air-toxics-standards-mats-power-plants

   FR Notice: https://www.federalregister.gov/documents/2017/04/06/2017-06884/mercury-and-air-toxics-standards-mats-electronic-reporting-requirements

2. A **Notice of Requests for Approval of an Alternative Means of Emission Limitation at Chevron Phillips Chemical Company LP** was signed 3/14/17, and published in the **Federal Register** 4/4/17, at 82 FR 16392. This action provides public notice and solicits comment on the alternative means of emission limitation request from Chevron Phillips Chemical Company LP (CP Chem), requested under the Clean Air Act, to operate a multi-point ground flare (MPGF) at their new ethylene plan in Baytown, Texas, and an MPGF at their new polyethylene plant in Old Ocean, Texas. Comments must be received on or before 5/4/17.

   FR Notice: https://www.federalregister.gov/documents/2017/04/04/2017-06597/notice-of-requests-for-approval-of-an-alternative-means-of-emission-limitation-at-chevron-phillips

3. A notice announcing the **Withdrawal of Proposed Rules: Federal Plan Requirements for Greenhouse Gas Emissions From Electric Utility Generating Units Constructed on or Before January 8, 2014; Model Trading Rules; Amendments to Framework Regulations; and Clean Energy Incentive Program Design Details** was signed 3/28/17, and published in the **Federal Register** 4/3/17, at 82 FR 16144. The EPA is withdrawing the 10/23/15, proposals for a federal plan to implement the greenhouse gas emission guidelines (EGs) for existing fossil fuel-fired electric generating units, for model trading rules for implementation of the EGs, and for amendments to the Clean Air Act 111(d) framework regulations, and the 6/30/16, proposed rule concerning design details of the Clean Energy Incentive Program.

   FR Notice: https://www.federalregister.gov/documents/2017/04/03/2017-06518/withdrawal-of-proposed-rules-federal-plan-requirements-for-greenhouse-gas-emissions-from-electric

4. A notice announcing **Review of the Clean Power Plan** was signed 3/28/17, and published in the **Federal Register** 4/4/17, at 82 FR 16329. The EPA announces that it is reviewing and, if appropriate, will initiate proceedings to suspend, revise, or rescind the Clean Power Plan (80 FR 64662, 10/23/15).

   FR Notice: https://www.federalregister.gov/documents/2017/04/04/2017-06522/review-of-the-clean-power-plan

5. A notice announcing **Review of the Standards of Performance for Greenhouse Gas Emissions From New, Modified, and Reconstructed Stationary Sources: Electric Generating Units** was signed 3/28/17, and published in the **Federal Register** 4/4/17, at 82 FR 16330. The EPA announces that it is reviewing and, if appropriate, will initiate proceedings to suspend, revise, or rescind the Standards of Performance for Greenhouse Gas Emissions From New, Modified, and Reconstructed Stationary Sources: Electric Generating Units (80 FR 64510, 10/23/15).

   FR Notice: https://www.federalregister.gov/documents/2017/04/04/2017-06519/review-of-the-standards-of-performance-for-greenhouse-gas-emissions-from-new-modified-and

6. A notice announcing **Review of the 2016 Oil and Gas New Source Performance Standards for New, Reconstructed, and Modified Sources** was signed 3/28/17, and published in the **Federal Register** 4/4/17, at 82 FR 16331. The EPA announces that it is reviewing the 2016 Oil and Gas New Source Performance Standards and, if appropriate, will initiate proceedings to suspend, revise, or rescind this rule (81 FR 35824, 6/3/16).

   FR Notice: https://www.federalregister.gov/documents/2017/04/04/2017-06658/review-of-the-2016-oil-and-gas-new-source-performance-standards-for-new-reconstructed-and-modified

Other NSPS and NESHAP Updates

For NESHAPs, see also https://www3.epa.gov/airtoxics/mactfnlalph.html for more information.

7. **RICE NSPS/NESHAP**
   Engine info: https://www.epa.gov/stationary-engines

   No recent updates.

8. **Boiler MACT (Subpart DDDDD) - 11/20/15, at 80 FR 72790**
   Boiler MACT info: https://www.epa.gov/stationary-sources-air-pollution/industrial-commercial-and-institutional-boilers-and-process-heaters

   No recent updates.

9. **NESHAP for Area Sources: Industrial, Commercial, and Institutional Boilers** (Subpart JJJJJJ)
   Boiler NESHAP info: https://www.epa.gov/stationary-sources-air-pollution/industrial-commercial-and-institutional-area-source-boilers

   No recent updates.

10. **Municipal Solid Waste Landfills**

    Standards of Performance for Municipal Solid Waste Landfills – 40 CFR part 60 subpart XXX final rule was signed 7/14/16. The EPA is finalizing a new subpart that updates the Standards of Performance for Municipal Solid Waste Landfills. The EPA's review of the standards for municipal solid waste landfills considered landfills that commence construction, reconstruction, or modification after 7/17/14. The final standards also reflect changes to the population of landfills and an analysis of the timing and methods for reducing emissions. This action will achieve additional reductions in emissions of landfill gas and its

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components, including methane, by lowering the emissions threshold at which a landfill must install controls. This action also incorporates new data and information received in response to the proposed rulemaking and addresses other regulatory issues including surface emissions monitoring, wellhead monitoring, and the definition of landfill gas treatment system.

Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills – 40 CFR part 60 subpart Cf final rule was signed 7/14/16. The EPA is finalizing a new subpart that updates the Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills (Emission Guidelines). The EPA reviewed the landfills Emission Guidelines based on changes in the landfills industry since the Emission Guidelines were promulgated in 1996. This action will achieve additional reductions in emissions of landfill gas and its components, including methane, by lowering the emissions threshold at which a landfill must install controls. This action also incorporates new data and information received in response to an advanced notice of proposed rulemaking and a proposed rulemaking and addresses other regulatory issues including surface emissions monitoring, wellhead monitoring, and the definition of landfill gas treatment system.

More info: https://www.epa.gov/stationary-sources-air-pollution/municipal-solid-waste-landfills-new-source-performance-standards

11. **NESHAP: Publicly Owned Treatment Works** was signed 2/13/17, and published in the **Federal Register** 2/22/17, at 82 FR 11334. On 12/27/16, the EPA proposed the NESHAP for Publicly Owned Treatment Works. We are extending the comment period on the proposed rule that was scheduled to close on 2/27/17, by 30 days until 3/29/17. We are making this change based on one request for additional time to prepare comments on this proposed rule.

    More information: https://www.epa.gov/stati onary-sources-air-pollution/publicly-owned-treatment-works-potw-national-emission-standards

12. **Granting Petitions To Add n-Propyl Bromide to the List of Hazardous Air Pollutants – extension of comment period** was signed 2/17/17, and published in the **Federal Register** 3/6/17, at 82 FR 12589. On 1/9/17, the EPA published a draft notice of the rationale for granting petitions to add n-propyl bromide (nPB), also known as 1-bromopropane (1-BP) (Chemical Abstract Service No. 106-94-5), to the list of hazardous air pollutants contained in section 112(b)(1) of the Clean Air Act. The EPA is extending the comment period on the draft notice that was scheduled to close on 3/10/17, by 90 days until 6/8/17. We are making this interim extension as an initial response to allow adequate consideration of a request to extend the comment period by more than 6 months.

    Fact Sheet: https://www.epa.gov/sites/production/files/201612/documents/npb-fact-sheet.pdf

    Federal Register notice: https://www.federalregister.gov/documents/2017/03/06/2017 04168/granting-petitions-to-add-n-propyl-bromide-to-the-list-of-hazardous-air-pollutants

13. **Oil and Gas Industry: Notice Regarding Withdrawal of Obligation to Submit Information** was signed 3/2/17, and published in the **Federal Register** 3/7/17, at 82 FR 12817. The EPA is providing notice that it is withdrawing its requests that owners and operators in the oil and natural gas industry provide information on equipment and emissions at existing oil and gas operations. In 2016, the EPA sent letters to more than 15,000 owners and operators in the oil and gas industry, requiring them to provide information. The information request comprised two parts: an "operator survey" that asked for basic information on the

numbers and types of equipment at onshore oil and gas production facilities in the United States, and a "facility survey" asking for more detailed information on sources of methane emissions and emissions control devices or practices in use by a representative sampling of facilities in several segments of the oil and gas industry. The EPA is withdrawing both parts of the information request.

More info: https://www.epa.gov/controlling-air-pollution-oil-and-natural-gas-industry/oil-and-gas-industry-information-requests

Background: https://www.epa.gov/controlling-air-pollution-oil-and-natural-gas-industry/background-information-request-oil-and

Other Permitting/Planning Updates

For more information about permitting rules and the NSR program in general, please visit http://www.epa.gov/nsr.

14. **$PM_{2.5}$ NSR Implementation Rule Precursor Demonstration Guidance.** This guidance supplements the PM2.5 Implementation Rule and provides the process in which permitting authorities can opt out for one or more of the $PM_{2.5}$ precursors. Comments on the draft guidance were due March 31, 2017.

    More info: https://www.epa.gov/pm-pollution/draft-pm25-precursor-demonstration-guidance

15. **Appendix W -** On December 20, 2016, the Administrator signed a final rule that revises the *Guideline on Air Quality Models*. The *Guideline* provides EPA-recommended models and other techniques, as well as guidance for their use, for predicting ambient concentrations of air pollutants. EPA's finalized changes, enhance the formulation and application of the agency's AERMOD dispersion model, prescribe modeling techniques for secondarily formed fine particle and ozone pollution for single sources and makes various editorial improvements. The final rule was published in the Federal Register on January 17, 2017, and the effective date of this action has been deferred to May 22, 2017.

    More info: https://www3.epa.gov/ttn/scram/appendix_w2016.htm

16. **Draft Guidance on the Development of Modeled Emission Rates for Precursors (MERPs) as a Tier 1 Demonstration Tool for Ozone and PM2.5 under the PSD Permitting Program** – comments were due March 31, 2017. https://www3.epa.gov/ttn/scram/guidance/guide/EPA454_R-16-006.pdf

    Previous webinar slides (1/19/2017):
    https://www3.epa.gov/ttn/scram/appendix_w/2016/MERPs_WebinarPresentation_01192017.pdf

    More information, SCRAM home: https://www.epa.gov/scram (see Announcements on right side of page)

    Fact Sheet: https://www3.epa.gov/ttn/scram/appendix_w/2016/Appendix_W-Fact_Sheet.pdf

17. **Significant Impact Levels for Ozone and Fine Particle in the Prevention of Significant Deterioration Permitting Program**
    EPA is making available for public comment draft guidance and supporting documents recommending Significant Impact levels (SILs) for ozone and fine particle pollution that may be used in the Prevention of

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Significant Deterioration (PSD) permitting program. SILs have been used in the PSD permitting process for many years to help determine whether proposed construction may be authorized in a Clean Air Act permit.

Draft Guidance: https://www.epa.gov/sites/production/files/201608/documents/pm2_5_sils_and_ozone_draft_guidance.pdf

Webinar Presentation: https://www.epa.gov/sites/production/files/201608/documents/webinar-ozone-pm25-sils-guidance-20160824.pdf

More info: https://www.epa.gov/nsr/draftguidance-comment-significant-impact-levels-ozone-and-fine-particle-prevention-significant

18. A notice concerning **Minor Revisions to AP-42 Section 13.5: Industrial Flares** was signed 1/13/17, and published in the **Federal Register** 1/23/17, at 82 FR 5821. On 12/14/16, the EPA issued minor revisions to AP-42 Section 13.5: Industrial Flares. AP-42 is the primary compilation of the EPA's emissions factor information. The EPA finalized these revisions in compliance with a settlement agreement entered into with Air Alliance Houston, Community In-Power and Development Association, Inc., Louisiana Bucket Brigade, and Texas Environmental Justice Advocacy Services (Plaintiffs).

    More information: https://www.epa.gov/air -emissions-factors-and-quantification/new-and-revised-emissions-factors-flares-and-new-emissions

19. Other permitting regulatory revisions in the proposal stage:

    - Removal of title V emergency affirmative defense provisions (June 14, 2016 at 81 FR 38645)
    - Establishment of a significant emission rate for GHGs under the PSD permitting program and revisions to the tailoring rule provisions (Oct. 3 2016 at 81 FR 67954)
    - Revisions to the petition provisions of the title V permitting program (Aug. 24, 2016 at 81 FR 57822)
    - 2015 ozone implementation rule (Nov. 17, 2016 at 81 FR 81276)

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To: membership@capcoa.org[membership@capcoa.org]; landfill-111d@capcoa.org[landfill-111d@capcoa.org]; engineers@capcoa.org[engineers@capcoa.org]
Cc: 'Le, Tung@ARB'[ttle@arb.ca.gov]; Shannon.Dilley@arb.ca.gov[Shannon.Dilley@arb.ca.gov]
From: Alan Abbs
Sent: Mon 4/24/2017 11:03:19 PM
Subject: [Landfill - 111(d)] FW: 111d landfill state plan and notice posted
2017-4-23 California State Plan FINAL.PDF
MayLandfillNotice.pdf

Attached is the documentation ARB submitted to request equivalency between the state and federal Landfill Methane Rules.

Alan

From: Le, Tung@ARB [mailto:ttle@arb.ca.gov]
Sent: Monday, April 24, 2017 3:55 PM
To: Alan Abbs <> (alan@capcoa.org) <alan@capcoa.org>
Cc: Dilley, Shannon@ARB <Shannon.Dilley@arb.ca.gov>
Subject: 111d landfill state plan and notice posted

Alan, can you please forward this email to the 111d work group, Engineering Managers and APCOs today? If you could please CC me and Shannon Dilley, it would be appreciated. Thanks

Tung

The California Air Resources Board is providing the U.S. Environmental Protection Agency and California Air Districts with notice of the public meeting along with the proposed California State Plan to implement the emission guidelines and compliance timelines for municipal solid waste landfills under 40 CFR Part 60, Subpart Cf. The notice and proposed California State Plan are being provided pursuant to the requirements of 40 CFR Part 60, Subpart B. The notice, proposed California State Plan, and appendices can be found at: https://www.arb.ca.gov/cc/landfills/landfills.htm under the "*California's State Plan*" section.

The Board meeting will occur on May 25, 2017. Please review the attached Board meeting notice for details and do not hesitate to contact me should you have any further questions.

Thank you.

Shannon Martin Dilley

Staff Attorney and Tribal Liaison

California Air Resources Board | Legal Office

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Sacramento, CA 95814

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California Environmental Protection Agency
Air Resources Board

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California Environmental Protection Agency
AIR RESOURCES BOARD

California State Plan for Municipal Solid Waste Landfills

Under Clean Air Act Section 111(d)

April 24, 2017

California Environmental Protection Agency
Air Resources Board
1001 I Street
Sacramento, California 95814

California State Plan for Municipal Solid Waste Landfills

April 24, 2017

This State Plan has been reviewed by the staff of the California Air Resources Board (ARB) and approved for publication. Approval does not signify that the contents necessarily reflect the views and policies of ARB.

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*Note: the State Plan and associated appendices are located at: https://www.arb.ca.gov/cc/landfills/landfills.htm under the "*California's State Plan*" section.

EXECUTIVE SUMMARY

On August 29, 2016, the U.S. Environmental Protection Agency (U.S. EPA) published final Emission Guidelines (or "Guidelines") to reduce both methane and non-methane organic compound (NMOC) emissions from existing municipal solid waste (MSW) landfills (81 Fed. Reg. 59275 [Aug. 29, 2019]). The Guidelines apply to "existing" MSW landfills that commenced construction, modification, or reconstruction before July 17, 2014, and that have accepted waste at any time since November 8, 1987, or have additional capacity for future waste acceptance. The Guidelines require the installation of a landfill gas collection and control system (GCCS) at larger MSW landfills that exceed a specified design capacity and NMOC emission threshold.

The Guidelines require that the state submit a plan to the U.S. EPA, which identifies how the state intends to meet the federal requirements contained in the Guidelines. This document presents California's State Plan to implement the Guidelines. It was developed by the California Air Resources Board (ARB) with the assistance of the air quality management and air pollution control districts (districts) and others working together as an ad hoc Landfill 111(d) Workgroup.

1. What do the Guidelines require?

The Guidelines require owners or operators of MSW landfills that have design capacities equal to or greater than 2.5 million megagrams (Mg) by mass and 2.5 million cubic meters (M^3) by volume to install a GCCS at each landfill that (1) accepted waste at any time since November 8, 1987; (2) commenced construction, reconstruction, or modification on or before July 17, 2014; and (3) has a NMOC emission rate greater than or equal to 34 Mg per year (50 Mg for MSW landfills in the closed landfill subcategory) or reaches a surface methane concentration of 500 parts per million (ppmv) or greater, according to optional Tier 4 surface emissions monitoring. Landfills must combust the collected gas at 98 percent efficiency, or provide equivalent control. The federal regulation also contains requirements for surface methane emissions monitoring, wellhead monitoring, recordkeeping, and reporting requirements.

2. Why were the Guidelines developed?

As the waste in a MSW landfill decomposes, it breaks down to form landfill gas which includes methane (50%), carbon dioxide (CO_2) (50%), and NMOCs (<1%). Methane is a potent greenhouse gas (GHG). NMOCs include precursors to photochemical smog (ozone), odorous compounds, and toxics. Toxics are pollutants known or suspected to cause cancer, birth defects, and other serious adverse health effects. The Guidelines are intended to significantly reduce landfill gas emissions from large landfills.

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3. How many existing landfills will be affected by the Guidelines?

The U.S. EPA has identified, and ARB concurs, that there are a total of 195 MSW landfills in California that are subject to the Guidelines. These landfills are also subject to California's Landfill Methane Regulation (LMR). Of these, 106 are required to install GCCS. All 106 landfills requiring controls are subject to the LMR and have already installed GCCS. A table of MSW landfills that are subject to the Guidelines is provided in Appendix C.

4. What is the purpose of the State Plan?

The purpose of the State Plan is to implement the requirements of the Guidelines specified in 40 Code of Federal Regulations (CFR) Part 60, Subpart Cf--Emission Guidelines and Compliance Times for MSW Landfills. The Guidelines apply to existing MSW landfills that have accepted waste since November 8, 1987, or have the capacity to accept future waste and are not new (i.e., not subject to the New Source Performance Standards – 40 CFR Subpart XXX). Section 111(d) of the federal Clean Air Act (CAA) and 40 CFR Part 60 Subpart B (Adoption and Submittal of State Plans for Designated Facilities) require ARB and the districts to submit a State Plan to the U.S. EPA Regional Administrator by May 30, 2017.

5. What are the major elements of the State Plan?

The major elements of the State Plan are a description of the legal basis and authority to implement the Guidelines, emission standards and compliance times, procedures (such as test methods) used for determining compliance with the emissions standards, legally enforceable increments of progress towards compliance, source and emission inventories of designated facilities, provisions for annual emission reporting and progress reports on enforcing the Guidelines, and a description of public participation in implementing the Guidelines.

6. What is the status of the Guidelines implementation?

This document demonstrates that California's statewide LMR is procedurally equal to and substantively more stringent than the federal Guidelines, not only achieving, but exceeding the reductions specified in the Guidelines. Therefore, the LMR is being submitted as the State's plan to implement the Guidelines. California's LMR which reduces emissions of methane and NMOCs from MSW landfills was approved by the Board on June 25, 2009. The LMR became effective on June 17, 2010; it requires owners and operators of certain uncontrolled MSW landfills to install GCCS's and requires existing and newly installed GCCSs to operate in an optimal manner. The regulation is a discrete early action measure to reduce GHG emissions under California's Assembly Bill 32 (AB 32).

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In every relevant instance, the LMR produces results as or more stringent than the Guidelines require. The LMR has improved how California captures and controls landfill gas emissions. Prior control devices were only required to achieve a NMOC destruction efficiency of 98 percent. Under the LMR, most control devices must achieve a methane destruction efficiency of at least 99 percent. Prior to the LMR, most landfills were only required to meet an instantaneous surface emission standard of 500 ppmv. Under the LMR, landfills must meet both an instantaneous surface emission standard of 500 ppmv and an integrated surface emission standard of 25 ppmv. By controlling landfill gas, you control emissions of methane, CO_2, NMOC, toxic substances, and odorous compounds.

Landfill owners and operators are familiar with the requirements of the LMR and many key requirements in the LMR mirror those found in the Guidelines. Should U.S. EPA approve the LMR as California's compliance plan, recognizing that it provides equivalent or greater reductions, sources complying with the requirements of California's LMR will also comply with the Guidelines. A copy of the LMR is located at: https://www.arb.ca.gov/regact/2009/landfills09/landfillfinalfro.pdf.

I.

INTRODUCTION

ARB is a world leader in addressing climate change, and fully supports U.S. EPA's rulemaking efforts to reduce both methane and NMOC from landfills. Recognizing the importance of reducing methane emissions, ARB's first Scoping Plan,[1] identifies methane reductions from landfills as a priority discrete early action measure in California's suite of GHG-reduction measures. As a result, ARB adopted the LMR as a statewide regulation[2] which became effective on June 17, 2010. As demonstrated in Appendix F "Emissions Reductions from California's Landfill Methane Regulation Beyond the Emission Guidelines," ARB estimates that, in addition to the methane reductions that could be realized with implementation of the Guidelines, the LMR regulates an additional 29 landfills in California, resulting in an additional 87,173 metric tons of CO_2e per year[3] of GHG reductions and 195 short tons per year of NMOC.

Further demonstrating that reducing landfill emissions can play a key role in meeting our climate change goals, the Board recently approved the Short-Lived Climate Pollutant Reduction Strategy,[4] which includes targets for the diversion of organics from landfills by 50 percent of 2014 levels by 2020, and 75 percent of 2014 levels by 2025. We anticipate that this measure will result in an additional reduction of 4 million metric tons of methane in 2030, which results in 14 million tons of methane reduced over the lifetime of waste decomposition. Finally, ARB's 2017 Climate Change Scoping Plan Update[5] highlights our past accomplishments and identifies additional waste management sector measures to reduce GHG emissions.

As California's state plan, the LMR builds on ARB's existing programs that, together, significantly reduce landfill emissions. Although there are some non-substantive differences between California's LMR and the Guidelines, the LMR imposes fundamentally similar procedural requirements on operators and is more stringent in substance than the Guidelines because it applies to smaller landfills (in addition to larger landfills) and has more stringent requirements for methane collection and control, component leak testing, and surface emissions monitoring and compliance time

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[1] California Air Resources Board, *Climate Change Scoping Plan* (2008) available at https://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf was written in response to the California Global Warming Solutions Act of 2006, Health & Saf. Code § 38500, et seq., Assembly Bill 32 (Nunez, ch. 488, Stats. of 2006).

[2] Methane Emissions from Municipal Solid Waste Landfills, Cal. Code Regs. tit., § 95460, et seq., available at https://www.arb.ca.gov/regact/2009/landfills09/landfillfinalfro.pdf.

[3] Based on 2015 Emissions.

[4] California Air Resources Board, *Short-Lived Climate Pollutant Reduction Strategy* (Mar. 2017) available at https://www.arb.ca.gov/cc/shortlived/meetings/03142017/final_slcp_report.pdf.

[5] California Air Resources Board, *The 2017 Climate Change Scoping Plan Update* (Jan. 2017) available at https://www.arb.ca.gov/cc/scopingplan/2030sp_pp_final.pdf.

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frames. It also regulates all of the landfills subject to subpart Cf, as well as an additional 29 landfills, and delivers more reductions than the Guidelines.

This State Plan is organized as follows:

- Appendix A contains California's LMR which was approved by the Board on June 25, 2009 as an early action measure under AB 32 and which became effective on June 17, 2010.

- Appendix B supplements the demonstration of legal authority in this plan. It contains the 1997 Attorney General's certification that the laws of California provide adequate authority to carry out the State Plan. It also contains the 1993 Attorney General's certification that the laws of California provide adequate authority to implement Title V (Operating Permits) of the CAA. The provisions of law under these two certifications were previously submitted and approved under 40 CFR Part, 60, Subpart B.[6]

- Appendix C provides a listing of MSW landfills that are affected by the Guidelines.

- Appendix D contains the meeting notices for ARB's workshop dated January 10, 2017, and Board hearing dated May 25, 2017, informing the public of California's 111(d) MSW landfill compliance strategy, along with other relevant information.

- Appendix E is a comparison of the major provisions of the Guidelines and California's LMR.

- Appendix F identifies emissions reductions from California's LMR beyond the Guidelines.

- Appendix G contains the MOUs signed between ARB and California's districts regarding implementation and enforcement of California's LMR.

- Appendix H contains the relevant provisions of law that were not previously certified or submitted under the 1997 Guidelines State Plan, or the 1993 operating permit State Plan, and are therefore required to be submitted under 40 CFR Part 60, Subpart B.

[6] 40 CFR §60.26.

II.

FEDERAL REQUIREMENTS

A. EMISSION GUIDELINES FOR MUNICIPAL SOLID WASTE LANDFILLS

The U.S. EPA promulgated the Guidelines for MSW landfills to implement section 111(d) of the CAA. The Guidelines require the states to submit a plan that establishes standards and compliance schedules for existing landfills (e.g., standards for the landfill GCCS and compliance schedule for installing controls). The Guidelines establish minimum criteria that a state is to use in developing its emissions standards. ARB is the state agency charged with CAA compliance and with greenhouse gas regulations, and is responsible for this plan. However, California air districts are otherwise the primary regulators of stationary sources and, recognizing their important role, the ARB LMR is implemented in partnership with the air districts. Therefore, ARB and the districts are together responsible for developing a plan for implementing the Guidelines and submitting the plan to the U.S. EPA Administrator for approval. ARB and districts have determined that submittal of the LMR as California's State Plan is the best strategy for compliance with the Guidelines.

An existing MSW landfill subject to the requirements of the Guidelines is a landfill that commenced construction, modification, or reconstruction before July 17, 2014, and has accepted waste at any time since November 8, 1987, or has additional capacity for future waste deposition. The Guidelines require owners or operators of MSW landfills meeting these conditions, and that have design capacities equal to or greater than 2.5 million Mg by mass and 2.5 million M^3 by volume to install a GCCS at each landfill that:

- Accepted waste at any time since November 8, 1987;
- Commenced construction, reconstruction, or modification on or before July 17, 2014; and
- Has a NMOC emission rate greater than or equal to 34 Mg per year (50 Mg for MSW landfills in the closed landfill subcategory) or the optional Tier 4 surface emissions monitoring shows a surface emission concentration of 500 ppmv methane or greater.

The collected gas must be combusted at 98 percent efficiency, unless equivalent control is implemented. The federal regulation also contains requirements for surface methane emissions monitoring, wellhead monitoring, and recordkeeping and reporting.

Owners and operators of MSW landfills subject to the Guidelines are not required to comply with its requirements until such time U.S. EPA has approved the State Plan or promulgated a federal plan for districts that fail to submit their own plans through ARB.

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However, all of these landfills continue to be regulated under, and responsible for compliance with, ARB's LMR, regardless of federal implementation status.

B. STATE PLAN

California is submitting its LMR as its State Plan for implementing the Emission Guidelines for existing MSW landfills as required by Section 111(d) of the CAA and 40 CFR Part 60 Subpart B. Under this approach, landfills subject to the Guidelines (40 CFR Part 60, Subpart Cf) will have a federally enforceable obligation to comply with the LMR, while other landfills not subject to the Guidelines will continue to have only state-enforceable obligations. U.S. EPA could recognize this distinction in its notice of decision.

Much like its counterpart provision for criteria pollutant planning, section 110, section 111(d) is intended to provide states with appropriate discretion to secure federally-required emission reductions. ARB appreciates that U.S. EPA has recognized, in the recent section 111(d) rulemaking for the power sector, that state measures can supply appropriate compliance pathways if they satisfy federal requirements. This degree of state flexibility is important to integrate successful state programs into the federal structure, consistent with the cooperative federalism approach of the CAA. It also helps to ensure that innovative state rulemakings can inform progress on the federal level, and perhaps be adopted by other states. ARB looks forward to working with U.S. EPA to ensure that the LMR can serve to comply with these important federal emissions reduction requirements.

ARB accordingly demonstrates herein that the LMR is in fact more stringent than the Guidelines. Capturing methane captures NMOC because it is all landfill gas and the control system does not distinguish the compounds within the landfill gas. The LMR has more stringent requirements for methane collection and control, component leak testing, surface emissions monitoring, and compliance time frames. It also applies to more landfills than does the federal rule. In addition, California's statewide LMR has been in effect since 2010 and is being jointly implemented and enforced by ARB and the districts.

The LMR, in sum, nets a greater reduction in methane emissions as described above, and U.S. EPA approval of the LMR as California's compliance plan will reduce regulatory burden on operators while achieving all of the goals of the Guidelines. Affected landfill owners and operators are already familiar with the LMR, and many key requirements in the Guidelines mirror those found in the LMR. Sources complying with the requirements of California's more stringent LMR will reduce their emissions at least as much as the Guidelines require. A copy of the LMR is provided in Appendix A and can also be found at: https://www.arb.ca.gov/regact/2009/landfills09/landfillfinalfro.pdf.

A comparison of the key provisions of the Guidelines and California's LMR demonstrating that the LMR satisfies the requirements specified in the Guidelines is provided in Appendix E "Comparison of the Major Provisions of the Emission Guidelines

and California's Landfill Methane Regulation." Appendix F illustrates the emissions reductions from California's LMR that exceed those required by the Guidelines. The State Plan also includes the major components listed below.

1. Legal Basis and Authority; Identification of Enforceable Mechanism

The State Plan must include a demonstration of the state's legal authority to carry out the State Plan. Pursuant to 40 CFR Part 60, Subpart B, section 60.26, states must show they have legal authority, through enforceable mechanisms to "(1) establish emission standards and compliance schedules applicable to designated facilities and pollutants identified under the Guidelines; (2) enforce applicable laws, regulations, standards, and compliance schedules, and seek injunctive relief; (3) obtain information necessary to determine whether designated facilities are in compliance with applicable laws, regulations, standards, and compliance schedules, including authority to require recordkeeping and to make inspections and conduct tests of designated facilities; and (4) require owners or operators of designated facilities to install, maintain, and use emission monitoring devices and make periodic reports to the State on the nature and amounts of emissions from such facilities and for the State to make such data available to the public."

ARB's authority to regulate and plan for compliance with the CAA requirements is extensive. By statute, ARB is "designated as the air pollution control agency for all purposes set forth in federal law," including 111(d) of the CAA, and Guidelines promulgated under that section.[7] This includes all acts "as may be necessary for the proper execution of its duties," including adopting and implementing rules and regulations.[8] ARB also has authority to gather information on air pollutants and their sources.[9] ARB also has primary AB 32 authority over sources of GHG emissions, with the authority to coordinate with other agencies for implementation and enforcement.[10] Districts also have authority to implement and enforce this State Plan pursuant to an MOU. California Health and Safety Code section 40000 states that the districts have primary responsibility for control of stationary sources. In the case of the LMR, section 95473 allows ARB to enter into agreements with the districts to implement and enforce the LMR.[11] ARB signed an MOU with most districts for implementation and enforcement of the LMR. Under these provisions, ARB and the districts have ample statutory and regulatory authority to develop, implement, and enforce the State Plan.

Specific authority is outlined below. Copies of referenced laws or regulations are attached in Appendix H and include the date of adoption, last amendment date, and effective date, where applicable. The specific authorities provided are contained in statutes, regulations, and MOUs, which are or will be fully effective by the time the State

[7] Health & Saf. Code §39602.
[8] Health & Saf. Code §§39600, 39601.
[9] Health & Saf. Code § 39607.
[10] Health & Saf. Code § 38501.
[11] Health & Saf. Code §§ 38501, 38510, 38560, 38560.5, 38580, 39600, 39601; Cal. Code Regs., tit. 17, § 95473.

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Plan is approved, and include those identified below and those incorporated by reference from Appendix B, the enclosed letter dated February 3, 1997, addressing California's authority to implement the initial Guidelines for Municipal Solid Waste Landfills promulgated in 1997; and the enclosed letter dated November 12, 1993, addressing California's authority to implement Title V (Operating Permits) of the CAA. In both letters, the Attorney General certified that the State and districts have the authority to implement the federal CAA Guidelines and Title V operating permits. Although such a certification is not required by the Guidelines, it further supports the demonstration here.

Authority to Adopt Emission Standards and Enforceable Conditions

State law provides authority for ARB and California's 35 districts to: (1) adopt rules and regulations establishing emission standards and other requirements applicable to the designated facilities; and (2) issue operating permits to the designated facilities and to incorporate into permits conditions that assure compliance with each applicable requirement of the CAA. State law also provides for prohibition of permit issuance to facilities that do not comply with applicable requirements. Applicable requirements include the requirements of Guidelines promulgated under CAA section 111(d). Applicable requirements also include district prohibitions against discharge of air contaminants under Health and Safety Code section 41700.

These authorities are cited in the enclosed February 3, 1997 letter, page 1, "Adoption of Emission Standards and Enforceable Conditions," page 2, "Enforcement of the Relevant Laws, Regulations, Standards, and Compliance Schedules," and page 5, "Retention of Delegated Enforcement Authority," and the enclosed November 12, 1993 letter, pages 1-3, "Authority to Issue Permits," page 7, "Incorporation of All Applicable Requirements into Permit," and as additionally specified below.

- *Federal Authority:* CAA §§111(b)(1)(A) [42 U.S.C. §7411(b)(1)(A)], 111(d) [42 U.S.C. §7411(d)]; 40 CFR Part 60, Subpart CC: 40 CFR §§ 60.33c, 60.34c, 60.35c, and 60.36c; 40 CFR Part 70, Subpart C: 40 CFR §§ 70.2, 70.3(a), and 70.3(b); 40 CFR Part 60, Subpart Cf: 40 CFR §60.30f, 60.31f, 60.32f, 60.33f, 60.34f, 60.35f, 60.36f, 60.37f, 60.38f, 60.39f, 60.40f, and 60.41f.

- *Statutory Authority:* Health and Safety Code §§ 38501, 38510, 38551, 38560, 38560.5, 38562, 38566, 38580, 38592, 38597, 39002, 39003, 39600, 39601, 39602.5, 39659, 40000, 40001, 40506.1, 40752, 41500, 41511, 41513, 40702, 41700, 41701, 42300, 42300.1, 42301.1, 42301.6, 42301.12, 42315, 42350, 42353, 42400, 42400.1, 42400.2, 42400.3, 42400.3.5, 42400.4, 42400.8, 42401, 42402.1, 42402.2, 42402.4, 42403, and 42450.

- *Regulatory Authority:* Cal. Code Regs. tit, 17 §§ 95461, 95463, 95464, 95465, 95469, 95472, and 95473.

Authority to Adopt Compliance Schedules

State law provides authority for the districts to issue permits to sources that are not in compliance with applicable requirements, and to include compliance schedules in permits to bring sources into compliance through adoption of compliance schedules applicable to the designated facilities and pollutants. These authorities are cited in the enclosed February 3, 1997 letter, pages 3-4, "Adoption of Compliance Schedules," and the enclosed November 12, 1993 letter, pages 3-4, "Authority to Issue Permits to Noncomplying Sources" and as additionally specified below.

- *Federal Authority*: CAA §§111(b)(1)(A) [42 U.S.C. §7411(b)(1)(A)], 111(d) [42 U.S.C. §7411(d)]; 40 CFR Part 60, Subpart CC: 40 CFR §60.36c; 40 CFR Part 60, Subpart Cf: 40 CFR §§60.32f and 60.36f.

- *Statutory Authority*: Health and Safety Code §§ 39601, 40702, 41703, 42301.1, 42301.5, 42315, 42353, 42357, and 42358.

- *Regulatory Authority:* Cal. Code Regs., tit. 17, §§ 95463, 95464, 95469, 95470, and 95473.

Authority to Enforce Relevant Laws, Regulations, Standards, and Compliance Schedules and Seek Injunctive Relief

State law provides civil and criminal enforcement authority to enforce relevant laws, regulations, standards, and compliance schedules, including authority to seek injunctive relief, as cited in the February 3, 1997 letter, page 3, "Enforcement of Relevant Laws, Regulations, Standards, and Compliance Schedules" and in the enclosed November 12, 1993 letter, page 11, "Enforcement of Permits Program Requirements" and as additionally specified below.

- *Federal Authority*: CAA §§111(b)(1)(A) [42 U.S.C. §7411(b)(1)(A)], 111(d) [42 U.S.C. §7411(d)]; 40 CFR Part 60, Subpart CC: 40 CFR §60.36c; 40 CFR Part 60, Subpart Cf: 40 CFR §§ 60.30f, 60.31f, 60.32f, 60.33f, 60.34f, 60.35f, 60.36f, 60.37f, 60.38f, 60.39f, 60.40f, and 60.41f.

- *Statutory Authority*: Health and Safety Code §§ 39601, 39659, 41513, 42300.1, 42301, 42453, 42356, 42362, 42402, and 42402.3.

- *Regulatory Authority*: Cal. Code Regs., tit.,17 § 95473.

Authority to Obtain Information

State law provides authority to obtain information necessary to determine whether designated facilities are in compliance with applicable laws, regulations, standards, and compliance schedules, including authority to require recordkeeping and to make inspections and conduct tests of designated facilities; and provides authority to request

information from regulated sources regarding their compliance status as cited in the February 3, 1997 letter, pages 3-5, "Authority to Obtain Information" and "Authority to Require Recordkeeping, Make Inspections, and Conduct Tests," and in the enclosed November 12, 1993 letter, page 6, "Monitoring, Recordkeeping, and Reporting," and as additionally specified below.

- *Federal Authority:* CAA §§111(b)(1)(A) [42 U.S.C. §7411(b)(1)(A)], 111(d) [42 U.S.C. §7411(d)], 114 [42 U.S.C. §7414]; 40 CFR Part 60, Subpart CC: 40 CFR §60.35c; 40 CFR Part 60, Subpart Cf: 40 CFR §§ 60.36f, 60.37f, 60.38f, and 60.39f.

- *Statutory Authority:* Health and Safety Code §§ 39600, 39601, 39605, 39607, 39659, 41510, 41513, 42301.3, 42303.5, 42336, 42706, 44341, 44344, and 44344.5.

- *Regulatory Authority:* Cal. Code Regs., tit. 17, §§ 95463, 95464, 95470, and 95473.

Authority to Require Recordkeeping, Make Inspections, and Conduct Tests

State law provides authority to require recordkeeping, incorporate recordkeeping requirements into operating permits, provides authority to inspect sources and any records required to determine a source's compliance status, and provides authority to conduct tests as cited in the February 3, 1997 letter, page 4, "Authority to Require Recordkeeping, Make Inspections, and Conduct Tests," and in the November 12, 1993 letter, pages 6-7, "Monitoring, Recordkeeping, and Reporting," page 7, "Inspection/Entry Authority," and as additionally specified below.

- *Federal Authority:* CAA §§111(b)(1)(A) [42 U.S.C. §7411(b)(1)(A)], 111(d) [42 U.S.C. §7411(d)], 114 [42 U.S.C. §7414], 504 [42 U.S.C.7661c]; 40 CFR Part 60, Subpart CC: 40 CFR §§ 60.35c and 60.34c; 40 CFR Part 70, Subpart C: 40 CFR § 70.6(c)(1); 40 CFR Part 60, Subpart Cf: 40 CFR §§ 60.37f, 60.38f, and 60.39f.

- *Statutory Authority:* Health and Safety Code §§ 39601, 40701, 41513, 42707, 44366, 39607, 41510, 41511, 42303, 44340, and 44342.

- *Regulatory Authority*: Cal. Code Regs., tit. 17 §§ 95470 and 95473.

Authority to Require Use of Monitors and Require Emission Reports

State law provides authority to require owners or operators of designated facilities to install, maintain, and use emission monitoring devices and make periodic reports to the State on the nature and amounts of emissions from such facilities and to incorporate monitoring and reporting requirements into operating permits as cited in the February 3, 1997 letter, page 5, "Authority to Require Use of Monitors and Require Emission

Reports," and in the enclosed November 12, 1993 letter, pages 6- 7, "Monitoring, Recordkeeping, and Reporting" and as additionally specified below.

- *Federal Authority:* CAA §§111(b)(1)(A) [42 U.S.C. §7411(b)(1)(A)], 111(d) [42 U.S.C. §7411(d)]; 40 CFR Part 60, Subpart CC: 40 CFR §§ 60.34c and 60.35c; 40 CFR Part 60, Subpart Cf: 40 CFR §§ 60.33f, 60.34f, 60.35f, 60.36f, 60.37f, 60.38f, 60.39f, and 60.40f.

- *Statutory Authority:* Health and Safety Code §§ 39601, 39607, 39659, 41513, 42315, 42303, 44344.5, and 44344.7.

- *Regulatory Authority:* Cal. Code Regs. tit, 17 §§ 95469, 95470, and 95473.

Authority to Make Emission Data Available to the Public

State law provides authority to make available to the public emissions data, any permit application, compliance plan, permit, and monitoring and compliance certification report, except for information entitled to confidential treatment as cited in the enclosed February 3, 1997 letter, page 5, "Authority to Make Emission Data Available to the Public," and the November 12, 1993 letter, pages 10-11, "Public Access to Permit Information" and as additionally specified below. State law also provides that the contents of an operating permit, except for trade secret information which is not emission data, shall not be entitled to confidential treatment.

- *Federal Authority:* CAA §§111(b)(1)(A) [42 U.S.C. §7411(b)(1)(A)], 111(d) [42 U.S.C. §7411(d)], 114(c) [42 U.S.C. §7414(c)], 502(b)(8) [42 U.S.C. §7661a(b)(8)], 503(e) [42 U.S.C. §7661b(e)], 5 U.C.S. §552; 40 CFR Part 70, Subpart C: 40 CFR §70.4.

- *Statutory Authority:* Health and Safety Code §§ 39601, 39601.5, 39604, 39607, 41513, 42301.6, 42337, 42409; and Gov. Code § 6254.7.

- *Regulatory Authority*: Cal. Code Regs., tit. 17, § 91001 and 93300.5.

Authority to Retain Delegated Enforcement Authority

State law provides authority for the State to retain enforcement authority even when such authority is delegated to the districts as cited in the enclosed February 3, 1997 letter on pages 3-4 "Retention of Delegated Enforcement Authority" along with the November 12, 1993 letter on page 11, "Enforcement of Permits Program Requirements," and as additionally specified below.

- *Federal Authority*: CAA §§111(b)(1)(A) [42 U.S.C. §7411(b)(1)(A)], 111(d) [42 U.S.C. §7411(d)]; 40 CFR Part 60, Subpart A: 40 CFR § 60.10; 40 CFR Part 60, Subpart Cf: 40 CFR § 60.30f.

- *Statutory Authority*: Health and Safety Code §§ 38510, 38580, 39001, 39002, 39003, 39600, 39601, 39602, 39605, 40000, 40001, 40701, 40702, 41500, 41513, 42362, 44365, and 42362.

- *Regulatory Authority*: Cal. Code Regs. tit., 17 95473; Memorandum of Understanding Between the California Air Resources Board and Districts Regarding Implementation and Enforcement of Regulation to Reduce Methane Emissions from Municipal Solid Waste Landfills.

2. Emission Standards and Compliance Schedules

The emission standards adopted by the state cannot be less stringent than the Guidelines. In addition, pursuant to 40 CFR Part 60 Subpart B, Adoption and Submittal of State Plans for Designated Facilities, section 60.24(c), compliance schedules must match those of the Guidelines. As we explain below, the LMR is more stringent than the Guidelines, and its reporting provisions and compliance schedules allow ARB and the districts to ensure that compliance is maintained, and to file any necessary reports with U.S. EPA.

Emission Standards

In every relevant instance, the LMR produces results as or more stringent than the Guidelines require. The Guidelines require that GCCS must be operated so that the methane concentration is less than 500 ppmv above background at the surface of the landfill. Section 95465 of the LMR requires that the GCCS be operated so that at no location on the landfill surface exceeds methane concentrations of 500 ppmv instantaneous surface methane emission standard, in addition to a 25 ppmv integrated surface emission standard; which is more stringent than the Guidelines.

The Guidelines require that a control device must achieve a NMOC reduction efficiency of 98 percent. Carbon adsorption and passive GCCS are allowed if specified conditions are met. Section 95464 of the LMR requires a methane reduction efficiency of 99 percent for most control devices; which is more stringent than the Guidelines. In addition, section 95464(b)(1)(B) establishes a component leak standard of 500 ppmv that is not specified in the Guidelines. The LMR does not allow the use of carbon adsorption or passive GCCS.

For all of these reasons, ARB is confident that continuing compliance with the LMR will satisfy the pollution reductions required by the Guidelines.

Compliance Schedules

In general, the LMR's compliance timeframes are more stringent than the Guidelines as illustrated in Appendix E and discussed in section II, subsection 4 on page 15.

3. Test Methods; Monitoring, Recordkeeping and Reporting Requirements

The State Plan must contain test methods and procedures for determining compliance with the emission standards. States can choose test methods or procedures that are different than those specified in 40 CFR Part 60. However, the test methods or procedures must be shown to be equivalent to the federal requirements including monitoring, recordkeeping, and reporting procedures.

Test Methods

The Guidelines requires the use of the following test methods and procedures:

- Specified equations are to be used for determining: (1) the NMOC emission rate if the actual year-to-year solid waste acceptance rate is known, (2) the NMOC emission rate if the actual year-to-year solid waste acceptance rate is unknown, (3) determining NMOC emission rate when a gas system can be removed, (4) control efficiency, and (5) maximum gas generation flow rate.

- Method 21 must be used for the measurement of methane utilizing a gas detector.

- Method 2E must be used to determine site-specific methane generation rate.

- Methods 25, 25C, or 18 of appendix A must be used for the performance test to determine compliance and to determine NMOC concentration.

- Method 3 or 3A must be used to determine oxygen for correcting the NMOC concentration as hexane to 3 percent.

- Method 3C must be used to determine the nitrogen level and Method 3A, 3C, or ASTM D6522-11 must be used to determine the oxygen level by using an oxygen meter for wellhead monitoring.

As illustrated in Appendix E, and in section 95471 *"Test Methods and Procedures,"* the LMR requires the use of the similar test methods and procedures. Both the Guidelines and LMR contain requirements for wellhead monitoring. The LMR focuses on requiring pressure monitoring for fire prevention, and to demonstrate sufficient vacuum on individual extraction wells in order to minimize methane emissions.

Monitoring

Both the Guidelines and the LMR require surface methane emissions monitoring. However, the LMR again goes further. It requires both instantaneous and integrated surface methane emissions monitoring. Integrated monitoring averages the point source measurements and is a good indicator of how well the gas collection system is operating overall. The LMR provides an incentive for establishing a history of

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compliance with the surface methane emission standards. If in compliance, the landfill owner or operator of a closed or inactive MSW landfill can decrease their sampling frequency from quarterly to annually.

The Guidelines provides a walking pattern spacing of 30 meters (or about 100 feet), whereas section 95471(c)(1)(B) of the LMR requires an initial walking pattern spacing of 25 feet, then 100 feet once consistent compliance is demonstrated and maintained.

Recordkeeping and Reporting Requirements

The Guidelines require recordkeeping provisions for the landfill and GCCS design; GCCS monitoring data; performance test data; and emissions related data. Reporting are required for a design capacity report, amended design capacity report, design plan, closure notification, equipment removal report, annual report, NMOC emission rate report, and an initial performance test report.

As illustrated in Appendix E, the LMR requires similar recordkeeping provisions for the landfill and GCCS design; GCCS monitoring data; performance test data; and emissions related data. Reporting provisions required by the LMR include a waste-in-place (WIP) report, landfill gas heat input capacity (HIC) report, design plan, amended design plan, closure notification, equipment removal report, annual report, and an initial performance test report, in addition to an annual source test report; which is more stringent than the Guidelines.

4. Legally Enforceable Increments of Progress Toward Compliance

Rules or other mechanisms developed by the states to implement the Guidelines must include enforceable compliance dates for submitting the final control plan, awarding contracts for construction of the GCCS, initiating on-site construction or installation of the GCCS, completing on-site construction or installation of the GCCS, and final compliance. The LMR, already in force, has already moved all covered landfills toward compliance as all of these landfills were already required to install a GCCS.

The Guidelines require that:

- MSW landfills having a design capacity of ≤ 2.5 million Mg by mass and 2.5 million m^3 by volume, must submit an initial design capacity report within 90 days of the U.S. EPA approved State Plan.

- MSW landfills having a design capacity of ≥ 2.5 million Mg by mass and 2.5 million m^3 by volume, must submit a NMOC emission rate report within 90 days of the U.S. EPA approved State Plan.

- A Design Plan must be submitted within one year after determining NMOC emission rate is ≥ 34 Mg/yr (or ≥ 50 Mg/yr for closed landfill subcategory).

- If a MSW landfill has a design capacity of ≥ 2.5 million Mg by mass and 2.5 million m^3 by volume, a GCCS must be installed:

    - Within 30 months after NMOC emission rate is ≥ 34 Mg/yr, or within 30 months after NMOC emission rate is 50 Mg/yr for closed landfill subcategory; or

    - Within 30 months after the date of the most recent NMOC emission rate is ≥ 34 Mg/yr, or Tier 4 surface emissions monitoring shows a surface methane emission measurement of ≥ 500 ppmv.

- Initial Performance Test of GCCS within 180 days from initial startup.

The LMR has more stringent compliance timeframes, which are already being met by most landfills. The compliance timeframes require:

- Active MSW landfills having <450,000 tons of WIP, must submit a WIP report within 90 days of effective date of the LMR.

- MSW landfills having ≥ 450,000 tons of WIP or upon reaching 450,000 tons of WIP, must submit a landfill gas HIC report within 90 days of effective date of the LMR and annually thereafter if the HIC is ≥ 3.0 million British thermal units per hour (MMBtu/hr).

- MSW landfills that have not yet installed a GCCS must submit a Design Plan by June 17, 2011; or within one year after determining landfill gas HIC is ≥ 3.0 MMBtu/hr; or within one year of detecting any leak on the landfill surface > 200 ppmv pursuant to the surface methane demonstration test.

- MSW landfills having a WIP of ≥ 450,000 tons and gas HIC of ≥ 3.0 MMBtu/hr, must install a GCCS within the following timeframe after approval of the Design Plan:

    - 18 months for active MSW landfills.

    - 30 months for closed or inactive MSW landfills.

- MSW landfills must conduct Initial Performance Test of the GCCS within 180 days from the initial start-up and annually thereafter. Testing is allowed to be performed every three years if specified conditions are met.

5. Source and Emission Inventories

The State Plan must contain a complete source and emissions inventory of existing MSW landfills in California that are regulated by the Guidelines. The source inventory must include all existing MSW landfills that have accepted waste since

November 8, 1987. For the purpose of the State Plan, the source inventory must include MSW landfills with design capacities above the 2.5 million Mg by mass and 2.5 million M^3 by volume, along with the names and locations of the landfills, and their design capacities if this information is available.

The emission inventory must provide estimates of the NMOC emissions from the large MSW landfills that are subject to the Guidelines. These requirements are met by Appendix C, which contains source and emissions inventory information for MSW landfills in California that are subject to the Guidelines as identified by U.S. EPA and the districts.

Additional information on California landfills is available in the California Department of Resource Recovery and Recycling's (CalRecycle) Solid Waste Information System (SWIS) database. Users are able to query SWIS on multiple parameters. The database is updated continuously and is located at: http://www.calrecycle.ca.gov/SWFacilities/Directory/Search.aspx.

6. Annual Emission Reporting and Progress Reports

40 CFR Part 60, Subpart B, sections 60.25 (a), (e) and (f) require state plans to provide for the submittal of annual progress reports to U.S. EPA on the status of enforcing the Guidelines. Each progress report must include summaries of enforcement actions taken and the progress made on each, a list of designated facilities that have ceased operation during the reporting period, updated NMOC emission inventories for MSW landfills that are subject to the Guidelines, and copies of technical reports on all performance testing and compliance information.

ARB believes that the annual progress reporting requirements can be satisfied through the annual reports received from the districts that signed the MOU to implement and enforce the LMR, and MSW landfills that are subject to the LMR. ARB will aggregate and submit these reports.

MOU District Annual Reporting

Districts that have signed an MOU to implement and enforce the LMR are required to submit annual reports to ARB summarizing:

- Any Notice of Violations (NOV) or other citations issued by the district specifying the issue date, landfill name, and section of the LMR cited for each NOV or other citation.

- The total number of instantaneous surface methane readings of 200 ppmv or greater pursuant to sections 95470(a)(1)(D) and 95471(c)(2)(A) of the LMR.

- A summary of alternative compliance options approved by the district pursuant to section 95468 for sections 95464, 95469, and 95471 of the LMR. The district

must provide the landfill name, address, nature of request, approval date, and section of the LMR cited for each alternative compliance option approved.

- The emission data required in section 95470(b)(3)(A) through 95470(b)(3)(I) of the LMR for each landfill since the previous annual report, except a topographic map of the landfill need only be submitted on a one-time basis.

Twenty-three districts have signed MOUs. ARB implements and enforces the LMR in those districts that have not signed an MOU.

Annual Reports

Section 95470 of the LMR requires MSW landfill owners and operators to submit an annual report for the period of January 1 through December 31 of each year. The annual report must contain detailed information about the landfill design, including GCCS monitoring data; performance test data; and emissions related data. Additionally, there are some specific reports that may be submitted under specific conditions, such as a WIP report for landfills with less than 450,000 tons of WIP or a closure notification report for landfills that are ceasing waste acceptance and closing. Any landfill seeking to decommission the GCCS must submit an equipment removal report. These reporting requirements are similar to the Guidelines' requirements. Again, ARB commits, as part of this State Plan, to aggregate and submit these reports in cooperation with the districts and regulated landfills.

7. Public Participation

The State Plan and U.S. EPA's general regulations for state plan submittals require that noticed public hearings be held on proposed compliance plans and that the state certify that such hearings have been held, and that all interested parties were notified at least 30 days prior to the date of the hearing. The certification submittal must include a list of all witnesses who offered testimony at the hearings, their organizational affiliations, and a brief summary of each presentation or submission.

On January 10, 2017, after providing notice on December 28, 2016, ARB held a public meeting to discuss California's strategy for compliance with U.S. EPA's new federal requirements for MSW landfills. Notice was provided to the public and all interested parties via internet list serves, email, interagency working group meetings, and telephone communications.[12] ARB presented two paths for compliance with the Guidelines: (1) using the LMR as California's State Plan, and (2) districts revising their existing rules to comply with the Guidelines.

[12] See 40 CFR Part 60, Subpart B, § 60.23.

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ARB regularly consulted with the districts, the California Air Pollution Control Officers Association (CAPCOA), and solid waste industry representatives. ARB has received comments from both the districts and the solid waste industry supporting the approach taken in this State Plan.

On May 25, 2017, ARB will hold a second public meeting to discuss ARB's intentions to submit the LMR as California's State Plan. The notice for this meeting along with this State Plan was released on April 24, 2017. ARB also sent the notice and State Plan to U.S. EPA and the districts.

A summary of the comments that were received from the January public meeting, including witness names and affiliations, is provided in Appendix D.

ARB hereby certifies that it held a public meeting that was held in accordance with the notice required by paragraph (d) of 40 CFR Part 60, Subpart B section 60.23.

8. Process for Review and Approval of Site-Specific GCCS Design Plans

The State Plan must include a process for the review and approval of site-specific design plans for the required GCCS.[13] If a landfill's NMOC emissions equal or exceed 34 Mg per year (50 Mg per year for a landfill in the closed subcategory), the landfill owner or operator must submit a site-specific design plan within one year to comply with the Guidelines.[14] The plan must also meet the design specifications for active collection systems or include alternative provisions.[15] This requirement will be satisfied through the LMR and implemented by the districts. The Air Pollution Control Officer (APCO) has the authority to review and to approve or disapprove the site-specific design plans under the LMR and any alternative provisions. In addition, Title V and district operating permit procedures provide for review and approval of permit terms and conditions including site-specific design plan provisions.

[13] See 40 CFR § 60.38f(d).
[14] *Ibid.*
[15] See 40 CFR §§ 60.40f and 60.38f(d).

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III.

ENVIRONMENTAL ANALYSIS

Introduction

This chapter provides the basis for ARB's determination that the proposed State Plan is exempt from the requirements of the California Environmental Quality Act (CEQA).[16] A brief explanation of this determination is provided in section B below. ARB's regulatory program, which involves the adoption, approval, amendment, or repeal of standards, rules, regulations, or plans for the protection and enhancement of the State's ambient air quality, has been certified by the California Secretary for Natural Resources under Public Resources Code section 21080.5 of CEQA. Public agencies with certified regulatory programs are exempt from certain CEQA requirements, including but not limited to, preparing environmental impact reports, negative declarations, and initial studies. ARB, as a lead agency, prepares a substitute environmental document (referred to as an "Environmental Analysis" or "EA") as part of the State Plan prepared for a proposed action to comply with CEQA.[17] If the State Plan is finalized, a Notice of Exemption will be filed with the Office of the Secretary for the Natural Resources Agency and the State Clearinghouse for public inspection.

Analysis

ARB has determined that the proposed State Plan is exempt from CEQA under the "general rule" or "common sense" exemption.[18] The common sense exemption states a project is exempt from CEQA if "the activity is covered by the general rule that CEQA applies only to projects which have the potential for causing a significant effect on the environment. Where it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment, the activity is not subject to CEQA." The proposed State Plan makes a previously analyzed, adopted, and state-enforced California regulation federally enforceable, which is administrative in nature. The continued implementation of an already existing regulation has no potential to adversely affect air quality or any other environmental resource area. Based on ARB's review it can be seen with certainty that there is no possibility that the proposed State Plan may result in a significant adverse impact on the environment; therefore, this activity is exempt from CEQA.

[16] Cal. Code Regs., tit. 14, § 15251(d).
[17] Cal. Code Regs., tit. 17, §§ 60000-60008.
[18] Cal. Code Regs., tit. 14, §15061(b)(3)).

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IV.

APPENDICES

- Appendix A: Landfill Methane Regulation
- Appendix B: 1993 and 1997 Attorney General's Certification of Legal Authority
- Appendix C: Municipal Solid Waste Landfills Affected by the Emission Guidelines
- Appendix D: Public Meeting Notices and Other Relevant Information
- Appendix E: Comparison of the Major Provisions of the Emission Guidelines and California's Landfill Methane Regulation
- Appendix F: Emissions Reductions from California's Landfill Methane Regulation Beyond the Emission Guidelines
- Appendix G: Memoranda of Understanding (MOU) Between California Air Resources Board and Districts Regarding Implementation and Enforcement of Regulation to Reduce Methane Emissions from Municipal Solid Waste Landfills
- Appendix H: Relevant Legal Authorities

*Note: the State Plan and associated appendices are located at: https://www.arb.ca.gov/cc/landfills/landfills.htm under the "*California's State Plan*" section.

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CALIFORNIA AIR RESOURCES BOARD

NOTICE OF PUBLIC MEETING TO CONSIDER CALIFORNIA'S PROPOSED STATE PLAN FOR THE FEDERAL MUNICIPAL SOLID WASTE LANDFILL EMISSION GUIDELINES

The Air Resources Board (ARB or Board) will conduct a public meeting at the time and place noted below to receive staff's recommendations regarding California's compliance strategy with recently finalized federal rules to reduce methane and non-methane organic compounds (NMOCs) from existing municipal solid waste (MSW) landfills.

DATE:	May 25, 2017
TIME:	9:00 a.m.
LOCATION:	California Environmental Protection Agency Air Resources Board Byron Sher Auditorium 1001 I Street Sacramento, California 95814

This item will be considered at a one-day meeting of the Board, which will commence at 9:00 a.m., May 25, 2017. This item is scheduled to be heard on the Board's Consent Calendar. All agenda items on the Consent Calendar – unless removed upon the request of a Board member or if someone in the audience submits a request-to-speak card on that item – will be voted on by the Board at the beginning of the public meeting.

Background

In 1997, the United States Environmental Protection Agency (U.S. EPA) issued its first federal rule, also known as emission guidelines (EG), designed to reduce NMOCs. The EG are implemented under the section 111(d) state planning framework, in which states must submit compliance plans to translate U.S. EPA's EG requirements into State regulations, which U.S. EPA approves and makes federally enforceable.

At that time, ARB worked with the California Air Pollution Control Officers Association (CAPCOA) and affected air districts to develop a model rule consistent with the 1997 federal requirements. The air districts then adopted rules based on the model rule and submitted them to ARB. ARB reviewed submitted rules for consistency with the jointly developed model rule, then compiled and submitted them as California's State Plan, which was subsequently approved by U.S. EPA.

Since the adoption of the initial landfill EG, California has made significant progress in reducing emissions from landfills. In 2010, ARB adopted its statewide Landfill Methane Rule (LMR). Similar to the EG, the LMR requires affected sources to control their landfill gas emissions by monitoring their landfills, keeping records, reporting their

emissions and installing gas collection and control systems if the emissions reach certain thresholds.

On August 29, 2016, U.S. EPA published updates to the EG for existing landfills, again under section 111 of the federal Clean Air Act. The updated EG includes provisions that will nationally regulate more landfills and requires more stringent emissions control techniques compared to the requirements in the 1997 EG. To comply with the EG, affected states are required to submit State Plans for review and approval by U.S. EPA. States may submit plans that are more stringent than the requirements of the EG. These plans are due to U.S. EPA by May 30, 2017.

ARB is charged with preparing California's State Plan. The proposed State Plan is designed to comply with this important federal rule. ARB staff has prepared this proposed State Plan with the assistance of an interagency working group and after conducting a workshop on January 10, 2017.

ARB is proposing to comply with the EG requirements by submitting its LMR as its compliance strategy. Staff is submitting the LMR as California's State Plan because the LMR is more stringent, achieving greater emissions reductions. Staff estimates that the LMR regulates 29 landfills that would not be regulated under an updated EG. In addition, all of the landfills that would be required to install new controls under the updated EG have already installed controls under the LMR. The LMR also has climate co-benefits because it reduces emissions by at least an additional 87,173 metric tons of CO_2 -equivalent compared to the reductions that would be achieved under the updated EG. In addition to achieving greater public health and climate benefits, submittal of the LMR as California's State Plan will assist affected sources with complying with both State and federal air quality requirements.

Environmental Analysis

ARB, as the lead agency under the California Environmental Quality Act (CEQA), has reviewed the proposed State Plan and concluded that this is exempt pursuant to CEQA Guidelines §15061(b)(3) because it can be seen with certainty that there is no possibility that the proposed action may result in significant adverse impact on the environment. A brief explanation of the basis for reaching this conclusion is included in the State Plan.

Proposed Action

ARB staff recommends that the Board adopt the proposed State Plan and direct staff to submit the State Plan to U.S. EPA.

Information and Submittal of Comments

Copies of the State Plan may be obtained from ARB's Public Information Office, 1001 I Street, First Floor, Environmental Services Center, Sacramento, California, 95814, April 24, 2017. The State Plan may also be obtained from ARB's website at: https://www.arb.ca.gov/cc/landfills/landfills.htm

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Interested members of the public may present comments orally or in writing at the meeting and may provide comments by postal mail or by electronic submittal before the meeting. ARB requests that written statements on this item be filed at least 10 days prior to the meeting so that ARB staff and Board members have additional time to consider each comment. To be considered by the Board, written comments not physically submitted at the meeting, must be received **no later than 5:00 p.m., May 24, 2017,** and addressed to the following:

Postal mail: Clerk of the Board, Air Resources Board
1001 I Street, Sacramento, California 95814

Electronic submittal: http://www.arb.ca.gov/lispub/comm/bclist.php

Please note that under the California Public Records Act (Government Code section 6250 et seq.), your written and oral comments, attachments, and associated contact information (e.g., your address, phone, etc.) become part of the public record and can be released to the public upon request.

Further inquiries regarding this matter should be directed to Renaldo Crooks, Air Pollution Specialist, Transportation and Toxics Division, at (916) 327-5618 or (designated back-up contact) Tung Le, Manager, Industrial Strategies Division, at (916) 445-1818.

SPECIAL ACCOMMODATION REQUEST

Consistent with California Government Code Section 7296.2, special accommodation or language needs may be provided for any of the following:

- An interpreter to be available at the meeting;
- Documents made available in an alternate format or another language;
- A disability-related reasonable accommodation.

To request these special accommodations or language needs, please contact the Clerk of the Board at (916) 322-5594 or by facsimile at (916) 322-3928 as soon as possible, but no later than ten business days before the scheduled Board meeting. TTY/TDD/Speech to Speech users may dial 711 for the California Relay Service.

Consecuente con la sección 7296.2 del Código de Gobierno de California, una acomodación especial o necesidades lingüísticas pueden ser suministradas para cualquiera de los siguientes:

- Un intérprete que esté disponible en la audiencia;
- Documentos disponibles en un formato alterno u otro idioma;
- Una acomodación razonable relacionados con una incapacidad.

Para solicitar estas comodidades especiales o necesidades de otro idioma, por favor llame a la oficina del Consejo al (916) 322-5594 o envié un fax a (916) 322-3928 lo

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más pronto posible, pero no menos de diez días de trabajo antes del día programado para la audiencia del Consejo. TTY/TDD/Personas que necesiten este servicio pueden marcar el 711 para el Servicio de Retransmisión de Mensajes de California.

CALIFORNIA AIR RESOURCES BOARD

Richard W. Corey
Executive Officer

Date: April 20, 2017

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our website at www.arb.ca.gov.

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To: Ryan Eberle[Ryan.eberle@gric.nsn.us]; kale.walch@pinalcountyaz.gov[kale.walch@pinalcountyaz.gov]; 'Todd Martin - AQDX'[TMartin@mail.maricopa.gov]; 'Scott Treece - AQDX'[TreeceS@mail.maricopa.gov]; 'Richard Sumner - AQDX'[SumnerR@mail.maricopa.gov]; 'Balaji Vaidyanathan'[Vaidyanathan.Balaji@azdeq.gov]; 'Naveen D. Savarirayan'[Savarirayan.Naveen@azdeq.gov]; 'Scott Porter'[Scott.Porter@pima.gov]; Rupesh Patel[Rupesh.Patel@pima.gov]; 'tbbegay@navajo-nsn.gov'[tbbegay@navajo-nsn.gov]; 'rbisht@navajo-nsn.gov'[rbisht@navajo-nsn.gov]; 'Anu Jain'[Anu.Jain@pinalcountyaz.gov]; Chen, Eugene[Chen.Eugene@epa.gov]; TSAI, YA-TING[Tsai.Ya-Ting@epa.gov]; Rios, Gerardo[Rios.Gerardo@epa.gov]
From: BECKHAM, LISA
Sent: Thur 3/1/2018 12:53:26 AM
Subject: RE: AZ Permit Managers Meeting
Rulemaking Updates February 2018.pdf
02_26_2018_CARB_CoreyLtr.pdf

Hi everyone,

Here's the EPA regulatory update and a letter we recently sent to California regarding landfills.

Lisa Beckham

Environmental Engineer

Air Permits Office

EPA Region 9

(415) 972-3811

-----Original Appointment-----
From: Ryan Eberle
Sent: Tuesday, January 30, 2018 6:31 AM
To: Ryan Eberle; BECKHAM, LISA; kale.walch@pinalcountyaz.gov; 'Todd Martin - AQDX'; 'Scott Treece - AQDX'; 'Richard Sumner - AQDX'; 'Balaji Vaidyanathan'; 'Naveen D. Savarirayan'; 'Scott Porter'; Rupesh Patel; 'tbbegay@navajo-nsn.gov'; 'rbisht@navajo-nsn.gov'; 'Anu Jain'; Chen, Eugene; TSAI, YA-TING; Rios, Gerardo
Subject: FW: AZ Permit Managers Meeting
When: Thursday, March 01, 2018 9:00 AM-12:00 PM (UTC-07:00) Arizona.
Where: Lone Butte Development Corporation, 1235 S. Akimel Lane, Chandler, AZ

-----Original Appointment-----
From: Ryan Eberle [mailto:Ryan.Eberle@gric.nsn.us]
Sent: Thursday, January 04, 2018 3:43 PM
To: Ryan Eberle; kale.walch@pinalcountyaz.gov; 'Todd Martin - AQDX'; 'Scott Treece - AQDX'; 'Richard Sumner - AQDX'; 'Balaji Vaidyanathan'; 'Naveen D. Savarirayan'; 'Scott Porter'; Rupesh Patel; 'tbbegay@navajo-nsn.gov'; 'rbisht@navajo-nsn.gov'; 'Anu Jain'; Chen, Eugene; TSAI, YA-TING; Rios, Gerardo
Subject: AZ Permit Managers Meeting
When: Thursday, March 01, 2018 9:00 AM-12:00 PM (UTC-07:00) Arizona.
Where: Lone Butte Development Corporation, 1235 S. Akimel Lane, Chandler, AZ

When: Thursday, March 01, 2018 9:00 AM-12:00 PM (UTC-07:00) Arizona.

Where: Lone Butte Development Corporation, 1235 S. Akimel Lane, Chandler, AZ

Note: The GMT offset above does not reflect daylight saving time adjustments.

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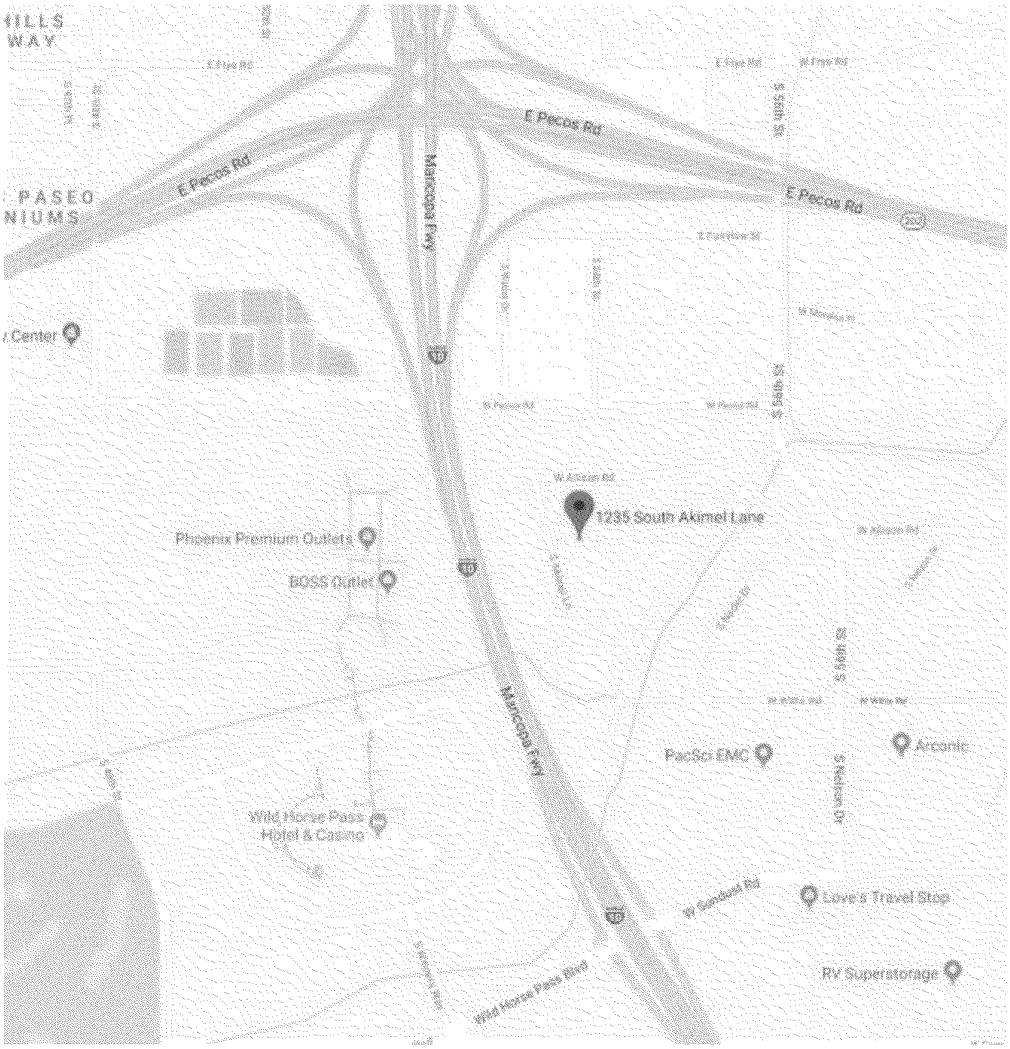
Agenda to follow.



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To: Jenn - NDEP[jcollier@ndep.nv.gov]; Lisa Kremer - NDEP[lkremer@ndep.nv.gov]
From: BECKHAM, LISA
Sent: Wed 2/28/2018 4:42:08 PM
Subject: Regulatory Updates - Feb 2018
Rulemaking Updates February 2018.pdf
02_26_2018_CARB_CoreyLtr.pdf

Listening session link: http://sanfrancisco.granicus.com/MediaPlayer.php?publish_id=ab614e09-1416-435b-9668-3d389748ccb9

Asbestos contact: Kingsley Adeduro

Adeduro.Kingsley@epa.gov

415-947-4182

Lisa Beckham

Environmental Engineer

Air Permits Office

EPA Region 9

(415) 972-3811

To: Johanna Kuspert - AQDX[JKuspert@mail.maricopa.gov]
Cc: Hether Krause - AQDX[HetherKrause@mail.maricopa.gov]; Cheri Dale - AQDX[CheriDale@mail.maricopa.gov]
From: BECKHAM, LISA
Sent: Mon 3/13/2017 1:16:30 PM
Subject: RE: Maricopa County Section 111(d) Plan: Draft For Review
AQ-2017-002_DraftCaaSection111dPlan 2017-03-10 lkb.docx
Landfills EGs Guidance Volume 2 1998.pdf

Hi Johanna-

Thank you for the opportunity to review this in advance. Attached are some comments. In addition, I'm attaching a copy of Volume 2 of the 1998 guidance. I converted it to a document that recognizes text so hopefully it is easier to use now.

One final note on the transmittal email. I would send to Elizabeth Adams and copy: Andy Steckel, Jeff Buss and myself.

Adams.Elizabeth@epa.gov

Steckel.Andrew@epa.gov

Buss.Jeffrey@epa.gov

Beckham.Lisa@epa.gov

Please let me know if you have any questions!

Thanks,

Lisa Beckham

Environmental Engineer

Air Permits Office

EPA Region 9

(415) 972-3811

From: Johanna Kuspert - AQDX [mailto:JKuspert@mail.maricopa.gov]
Sent: Wednesday, March 01, 2017 12:59 PM
To: BECKHAM, LISA <BECKHAM.LISA@EPA.GOV>
Cc: Hether Krause - AQDX <HetherKrause@mail.maricopa.gov>; Cheri Dale - AQDX <CheriDale@mail.maricopa.gov>
Subject: Maricopa County Section 111(d) Plan: Draft For Review

Lisa:

Attached please find the Maricopa County Air Quality Department's (MCAQD's) draft Section 111(d) Plan for municipal solid waste landfills.

If you could take a quick look-at-it and let us know if we are providing the correct information (we included information for 40 CFR Part 60, Subpart B, Sections 60.23, 60.24. 60.25, and 60.26) and in enough detail, we'd appreciate it.

We are tentatively going to have a Stakeholder Meeting on Fri, March 10, 2017 to discuss this draft Plan. If you could provide your initial comments to us by then, that would be great. Otherwise, shortly thereafter would be fine as well.

Also re: submitting the Plan to the EPA, would it be okay if the MCAQD mailed a paper copy of the Plan (with a cover letter) to Elizabeth Adams and sent an e-mail message to Elizabeth Adams (with cc. to you) with the Plan attached as a .pdf (instead of mailing the Plan on a CD)?

Thank you for your time.

Johanna M. Kuspert · Rules Unit Supervisor

Maricopa County Air Quality Department

1001 N. Central Avenue, #125 | Phoenix, AZ 85004

Located at the Central Ave. & Roosevelt METRO stop

Desk: 602.506.6710
CleanAirMakeMore.com | Maricopa.gov/AQ

Burn Cleaner, On No Burn D Wood.

From: BECKHAM, LISA [mailto:BECKHAM.LISA@EPA.GOV]
Sent: Thursday, February 16, 2017 2:34 PM
To: Johanna Kuspert - AQDX <JKuspert@mail.maricopa.gov>
Cc: Natalie Muilenberg <Muilenberg.Natalie@azdeq.gov>; Ryan C. Templeton <Templeton.Ryan@azdeq.gov>; Matthew Ivers <Ivers.Matthew@azdeq.gov>; Hether Krause - AQDX <HetherKrause@mail.maricopa.gov>
Subject: RE: Maricopa County Section 111(d) Plan: Follow-Up

Hi Johanna,

Yes, I confirm the information below. However, I will caveat that we don't need 2 paper copies. Something like a cover letter with the plan on a CD would be fine – and preferred in order to save paper. And actually if you submit the plan on CD, then you wouldn't need to email me a copy. (By no electronic method, we mean there isn't a web-based interface where you upload documents and enter information electronically.)

Lisa Beckham

Environmental Engineer

Air Permits Office

EPA Region 9

(415) 972-3811

From: Johanna Kuspert - AQDX [mailto:JKuspert@mail.maricopa.gov]
Sent: Thursday, February 16, 2017 6:15 AM
To: BECKHAM, LISA <BECKHAM.LISA@EPA.GOV>
Cc: Natalie Muilenberg <Muilenberg.Natalie@azdeq.gov>; Ryan C. Templeton <Templeton.Ryan@azdeq.gov>; Matthew Ivers <Ivers.Matthew@azdeq.gov>; Hether Krause - AQDX <HetherKrause@mail.maricopa.gov>
Subject: Maricopa County Section 111(d) Plan: Follow-Up

Lisa:

Just to confirm:

• The MCAQD can submit the Section 111(d) plan for municipal solid waste landfills directly to the EPA.

• The MCAQD should mail two (2) paper copies of the Section 111(d) plan for municipal solid waste landfills to Elizabeth Adams, Air Division Director, U.S. Environmental Protection Agency, 75 Hawthorne Street, San Francisco, CA 94105. And, as you requested, the MCAQD should e-mail the Section 111(d) plan for municipal solid waste landfills to you as well.

• Per 40 CFR Part 60, Section 60.23 plans are to be submitted to the Administrator according to 40 CFR Part 60, Section 60.4, which says in (a): "All requests, reports, applications, submittals, and other communications to the Administrator pursuant to this part shall be submitted in duplicate to the appropriate Regional Office of the U.S. Environmental Protection Agency to the attention of the Director of the Division indicated in the following list of EPA Regional Office…"

• The MCAQD should include "responses" to 40 CFR Part 60, Subpart B, Sections 60.23, 60.24. 60.25, and 60.26 in the Section 111(d) plan for municipal solid waste landfills; these sections can be used as a "checklist". There currently is <u>not</u> an electronic submittal system in place.

• As far as the Congressional Review Act (CRA) actions, you don't have any information beyond what is in the news. You haven't heard that these rules are being targeted – just that they are within the potential reach of the CRA.

Just so you know, I've cc.ed three people from the Arizona Department of Environmental Quality (ADEQ); they are working-on their Section 111(d) plan for municipal solid waste landfills and this information could be useful to them, as well.

Thanks.

Johanna M. Kuspert • **Rules Unit Supervisor**

Maricopa County Air Quality Department

1001 N. Central Avenue, #125 | Phoenix, AZ 85004

Located at the Central Ave. & Roosevelt METRO stop

Desk: 602.506.6710
CleanAirMakeMore.com | **Maricopa.gov/AQ**

Burn Cleaner, On No Burn D Wood.

DRAFT-For Review And Discussion-DRAFT
March 10, 2017

Maricopa County

PLAN FOR IMPLEMENTING

THE MUNICIPAL SOLID WASTE LANDFILLS

EMISSION GUIDELINES AND

COMPLIANCE TIMES

In Accordance with Section 111(d) of the Clean Air Act

and

40 CFR Part 60, Subpart B

Prepared for Submittal to the EPA by

Maricopa County Planning and Analysis Division

Maricopa County Air Quality Department

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DRAFT-For Review And Discussion-DRAFT
March 10, 2017

INTRODUCTION

On August 29, 2016, the U.S. Environmental Protection Agency (EPA) promulgated emission guidelines for municipal solid waste (MSW) landfills under the Clean Air Act (CAA), Section 111 (Standards of Performance for New Stationary Sources).[1] The emission guidelines set forth specific mechanisms and requirements for controlling emissions of methane (with emission of non-methane organic compounds (NMOCs) used as a proxy to aid in such control). The emission guidelines are codified at Title 40 (Protection of Environment) of the Code of Federal Regulations (CFR), Part 60 (Standards of Performance for New Stationary Sources), Subpart Cf (Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills).[2]

CAA Section 111(d) and 40 CFR Part 60, Subpart Cf, Section 60.30(f)(b) require a State to submit to the EPA a plan to implement the emission guidelines and compliance times for MSW landfills. State plans submitted to the EPA must include elements described in the EPA regulations, including 40 CFR Part 60, Subparts B (Adoption and Submittal of State Plans for Designated Facilities)[3] and Cf, as well as the elements listed in the EPA guidance document, *Municipal Solid Waste Landfills, Volume 2 (guidance document).*[4] The *guidance document* originally focused on the State plan development and approval process for 40 CFR Part 60, Subpart C (Emission Guidelines for Existing Municipal Solid Waste Landfills).[5] These same submittal requirements for 40 CFR Part 60, Subpart Cc have been used as the basis for preparing this plan (referred to as the Section 111(d) Plan) to comply with the new emission guidelines as promulgated at 40 CFR 60, Subpart Cf.

The EPA requires any State plan required by the CAA Section 111(d) to contain specific elements. The EPA *guidance document* provided guidance to merge the specific requirements of 40 CFR Part 60, Subpart Cc and the general requirements of the CAA Section 111(d) elements into a State plan for MSW landfills. Using the information provided in these two documents, the MCAQD identified the following requirements to be included in the Section 111(d) Plan:

1) Identification of enforceable state mechanisms selected by the State for implementing the EPA emission guidelines;

2) A demonstration of the State's legal authority to carry out the Section 111(d) State plan as submitted;

3) An inventory of existing MSW landfills the State that are affected by the 40 CFR 60, Subpart Cf emission guidelines. An existing MSW landfill may be active (currently accepting waste or having additional capacity available to accept waste) or closed (no longer accepting waste and permanently inactive);

4) An inventory of emissions from existing MSW landfills in the state that are affected by the emission guidelines;

5) Emission standards for existing MSW landfills that are no less stringent than those in the emission guidelines;

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6) The State process, as stipulated in 40 CFR Part 60, Subpart Cf, for review and approval of site-specific gas collection and control system design plans;

7) Compliance schedules, extending no later than 30 months after the date the annual non-methane organic compound emission rate reaches or exceeds 34 megagrams (Mg) per year;

8) Testing, monitoring, recordkeeping, and reporting requirements;

9) A record of public hearing(s) on the State plan; and

10) A provision for annual MCAQD progress reports to EPA on implementation of the State plan.

The remainder of this Section 111(d) Plan will describe how this Section 111(d) Plan meets each of the above requirements.

For the purposes of this Section 111(d) Plan, the Maricopa County Air Quality Department (MCAQD) is considered a "State". In 40 CFR Part 60, Subpart A (General Provision), Section 60.2 (Definitions), "State" means all non-Federal authorities, including local agencies, interstate associations, and State-wide programs, that have delegated authority to implement: (1) The provisions of this part; and/or (2) the permit program established under part 70 of this chapter. The term State shall have its conventional meaning where clear from the context. "And/or" means that the term "state" includes local agencies that have authority to implement either or both of the programs mentioned. The MCAQD has the authority to implement both. In clause (1), "this part" refers to the Part 60. The MCAQD has delegation to administer the provisions of Part 60 and therefore qualifies under this clause. Part 70 consists of the requirements for state Title V programs. The MCAQD also has delegated authority (or more accurately an approved program) under Title V and Part 70, and therefore qualifies under this clause as well.

Also on August 29, 2016, the EPA promulgated, under Section 111(b) of the Clean Air Act,[7] a New Source Performance Standard (NSPS) for new, modified, or reconstructed MSW landfills. The NSPS is codified at 40 CFR Part 60, Subpart XXX (Standards of Performance for Municipal Solid Waste Landfills That Commenced Construction, Reconstruction, or Modification After July 17, 2014). This Section 111(d) Plan does not address the NSPS. The MCAQD will address the NSPS in a separate request to the EPA; the request will be to update delegation of local authority to implement such standards. That request will encompass updating of the MCAQDs delegated authority from the EPA to administer NSPS adopted by the EPA since July 1, 2016, including the NSPS for new, modified, and reconstructed MSW landfills at 40 CFR Part 60, Subpart XXX.[8] This NSPS will be incorporated by reference at Maricopa County Air Pollution Control Regulations, Regulation III-Control of Air Contaminants, Rule 360, *New Source Performance Standards*.[9]

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Citations

[1] 42 U.S.C. § 7411(d)

[2] Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills. 81 Fed. Reg. 59276 (August 29, 2016) (to be codified at 40 CFR 60, Subpart Cf).

[3] Adoption and Submittal of State Plans for Designated Facilities as codified in the Code of Federal Regulations at 40 CF 60, Subpart B. 40 FR 53346, November 17, 1975.

[4] Municipal Solid Waste Landfills, Volume 2: Summary of Requirements for Section 111(d) State Plans for Implementing the Municipal Solid Waste Landfill Emission Guidelines. United States Environmental Protection Agency, Office of Air Quality, EPA-456R/98-009, November 1998. Accessed February 13, 2017, at https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=2000F3BG.pdf

[5] Emission Guidelines for Existing Municipal Solid Waste Landfills as codified in the Code of Federal Regulations at Title 40, Part 60, Subpart Cc. 61 Fed. Reg. 9919 (March 12, 1996).

[6] Arizona Revised Statues, Title 49-The Environment, Chapter 3 Air Quality, Article 3 County Air Pollution Control, Section 49-479 Rules; hearing. (Accessed at http://www.azleg.gov/viewdocument/?docName=http://www.azleg.gov/ars/49/00479.htm January 6, 2017).

[7] 42 U.S.C. § 7411(b)

[8] The New Source Performance Standard for Municipal Solid Waste Landfills to be codified in the Code of Federal Regulations at Title 40, Part 60, Subpart XXX. (81 Fed. Reg. 59332, August 29, 2016).

[9] Maricopa County Air Pollution Control Regulations, Regulation III-Control of Air Contaminants, Rule 360, *New Source Performance Standards*. As revised and adopted by the Maricopa County Board of Supervisors on November 2, 2016.

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I Identification of enforceable MCAQD mechanisms selected by the MCAQD for implementing the EPA emission guidelines. (40 CFR 60.24(a))

The MCAQD originally drafted and adopted Maricopa County Air Pollution Control Regulations, Regulation III-Control of Air Contaminants, Rule 321 *Municipal Solid Waste Landfills* on May 14, 1997, in response to the issuance of the Standards of Performance for New Stationary Sources and Guidelines for Control of Existing Sources: Municipal Solid Waste Landfills (40 CFR Part 60, Subpart Cc, 61 Fed. Reg. 9905, March 12, 1996). The MCAQD is planningg to implement the new emission guidelines, 40 CFR Part 60, Subpart Cf for MSW landfills, with appropriate revisions into a legally enforceable revised Rule 321 *Municipal Solid Waste Landfills*.

II A demonstration of the MCAQD's legal authority to carry out the Section 111(d) State plan as submitted. (40 CFR 60.26)

The MCAQD is proposing to implement the new emission guidelines, 40 CFR Part 60, Subpart Cf, for MSW landfills with appropriate revisions into a legally enforceable revised Rule 321 *Municipal Solid Waste Landfills*.

Arizona Revised Statutes (A.R.S.) §§ 49-112, 49-474, 49-471.09, 49-479, 49-480 authorize MCAQD to issue and administer rules. A.R.S. §§ 49-112, 49-471.04, 49-474, 49-479, and 49-480 establish the procedure for rule adoption of a County regulation. The MCAQD will comply with the rule adoption process for the adoption of revised Rule 321 *Municipal Solid Waste Landfills*.

III An inventory of existing municipal solid waste landfills within the jurisdiction of the MCAQD that are affected by the 40 CFR Part 60, Subpart Cf emission guidelines. An existing landfill may be active (currently accepting waste or having additional capacity available to accept waste) or closed (no longer accepting waste and permanently inactive). (40 CFR 60.25(a) and (c))

There are a total of fifteen (15) landfills located within Maricopa County. Of those, eleven (11) are MSW landfills that fall within the jurisdiction of the MCAQD; one (1) is an inert landfill; and three (3) MSW landfills are operated by the Salt River Pima-Maricopa and Fort McDowell Indian Communities and fall under the jurisdiction of the U.S. Bureau of Indian Affairs. The existing eleven (11) MSW landfills within the jurisdiction of the MCAQD are:

State Route 85
Southwest Regional
Butterfield Station
Northwest Regional
Glendale
Skunk Creek
27th Avenue
Queen Creek

Chandler (McQueen)
Cave Creek
19th Avenue

Table 1 below summarizes the MSW landfill facilities and status of each facility that is located within Maricopa County.

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DRAFT-For Review And Discussion-DRAFT
March 10, 2017

Table 1: Municipal Solid Waste Landfills Within Maricopa County

List of Active and Inactive MSWLF Subject to NSPS and/or Rule 321

Landfill	waste-in-place (tons)	waste-in-place (Mg)	opened	closed*	active GCCS?	subject to Rule 321?	subject to WWW?	PN	years active	avg annual waste deposit (tpy)	avg annual waste deposit (Mg/yr)
1 State Route 85	9,093,108	8,249,128	2006	-	Yes	No	Yes	V03002	10	826,646	749,921
2 Southwest Regional	9,500,000	8,618,255	1997	-	Yes	No	Yes	V97023	19	475,000	430,913
3 Butterfield Station	30,900,000	28,032,007	1990	-	Yes	Yes	No	V98003	26	1,144,444	1,038,222
4 Northwest Regional	16,600,000	15,059,266	1983	-	Yes	Yes	No	V97016	33	488,235	442,920
5 Glendale	17,800,000	16,147,888	1973	-	Yes	Yes	No	V97015	43	404,545	366,997
6 Skunk Creek	16,122,000	14,625,632	1972	2005	Yes	Yes	No	V97019	33	474,176	430,166
7 27th Avenue	10,800,000	9,797,595	1978	1995	Yes	Yes	No	150058	17	600,000	544,311
8 Queen Creek	4,120,664	3,738,203	1972	2007	No	No	No	GP			
9 Chandler (McQueen)	1,244,301	1,128,811	1976	2005	Yes	No	No	020159			
10 Cave Creek	?	#VALUE!	?	?	Yes	No	No	980398			
11 19th Avenue	?	#VALUE!	1957	1979	Yes	No	No	010048			
12 Lone Cactus	?	#VALUE!	?	?	No	No	No	990066			
13 North Center Street											
14 Salt River											
15 Tri Cities											

** 2017 is used as the inventory year for each instance in LandGEM*

1-7 modeled with LandGEM using CAA defaults. These represent sources in Maricopa County which are potentially affected by a revision to the State plan.

8 Queen Creek - tier monitoring never triggered GCCS requirement, not Subject the Rule 321 or NSPS.

9 Chandler (McQueen) - closed before achieving 2.5 Mg waste-in-place, not Subject the Rule 321 or NSPS.

10 Cave Creek - closed before achieving 2.5 Mg waste-in-place (TSD), not Subject the Rule 321 or NSPS.

11 19th Avenue - received no waste since 1987, not Subject the Rule 321 or NSPS but may be affected by revisions to State plan under a LAER determination for this source.

12 Lone Cactus - Not a MSW landfill, this is permitted as an inert landfill.

13-15 Operated by the Salt River Pima-Maricopa and Fort McDowell Indian Communities and fall under the jurisdiction of the U.S. Bureau of Indian Affairs.

IV An inventory of potential non-methane organic compounds (NMOC) emissions from existing MSW landfills within the jurisdiction of the MCAQD that are likely to be affected by the emission guidelines was prepared using the EPA LandGEM model. LandGEM is based on a first-order decomposition rate equation for quantifying emissions from the decomposition of landfilled waste in MSW landfills. (40 CFR 60.25(a) and (c))

The EPA regulations require a State plan to provide an emissions inventory of the MSW landfills that include an estimate of the NMOC emissions.

There are seven (7) existing MSW landfills within the jurisdiction of the MCAQD that may be affected by the 40 CFR 60, Subpart Cf emission guidelines. To "correlate" the inventory with applicable emission standards, the inventory compares the estimated emissions with the old emission standard codified under 40 CFR Part 60, Subpart Cc and with the recently revised emission standard-to be codified at 40 CFR 60, Subpart Cf .

Table 2 below represents total estimated land fill gas ("LFG") produced in inventory year 2017 based on user entered data (these data include specific waste acceptance each year as well as standard parameters). For the inventory year 2017, the estimated emissions of these seven (7) MSW landfills yields a combined 7,703 tons of NMOC per year.

Table 2: LandGEM Emissions Summary
For MSW Landfills Within The Jurisdiction Of The MCAQD

LandGEM Summary for all MSW Landfills Subject to NSPS and/or Rule 321 Using Default (CAA) Parameters

MODEL PARAMETERS (ARID)*

Enter year of emissions inventory:	2017
Methane Generation Rate, k:	0.02 1/year
Potential Methane Generation Capacity,	170 m³/Mg
NMOC Concentration:	4,000 ppmv as hexane
Methane Content:	50 % by volume

Gas / Pollutant (tpy)	State Route 85	Southwest Regional	Butterfield Station	Northwest Regional	Glendale	Skunk Creek	27th Avenue	Totals
Total landfill gas (LFG)	69,240	66,420	202,500	102,200	100,400	79,630	50,550	670,940
Methane	18,490	17,740	54,100	27,290	26,820	21,270	13,500	179,210
Carbon dioxide	50,740	48,680	148,400	74,880	73,590	58,360	37,050	491,700
Non-methanic organic compounds (NMOC)	795	763	2,325	1,173	1,153	914	580	7,703

** An "arid region" is defined as a region receiving less than 25 inches average annual rainfall.*

These seven (7) MSW landfills are considered non-co-disposal, meaning no hazardous wastes are accepted and the provisions of 40 CFR Parts 260 through 282 (RCRA) are not applicable. Therefore, EPA guidance suggests that 39 percent of total NMOC may be considered a valid estimate of total volatile organic compounds (VOCs) of LFG, for potential to emit (PTE) purposes. Also, each of these MSW landfills has a gas collection and control system ("GCCS") in place and operating according to the provisions of the NSPS and/or Rule 321. Therefore, the majority of these organic emissions are combusted or otherwise controlled to approximately a 98 percent (98%) efficiency rate. The EPA

suggests a properly installed GCCS will achieve rightly 75 percent capture, with 25 percent considered fugitive, as these emissions defy capture methods.

Therefore, stack VOC emissions for each MSW landfill may be estimated using LandGEM by assuming 39 percent of all NMOC are VOC; 75 percent of all VOC generated are collected by the GCCS; and 98 percent of which are oxidized by controls. Table 3 below summarizes the VOC emissions for each MSW landfill that falls within the jurisdiction of the MCAQD.

Table 3: VOC Emissions Summary
For MSW Landfills Within The Jurisdiction Of The MCAQD

VOC Estimates for all MSW Landfills Subject to NSPS and/or Rule 321 (includes controls)

Percent of NMOC that are VOC: 39%
Percent of VOC collected by GCCS: 75%
Percent of VOC oxidized by controls: 98%

Gas / Pollutant (tpy)	State Route 85	Southwest Regional	Butterfield Station	Northwest Regional	Glendale	Skunk Creek	27th Avenue	Totals
Volatile organic compounds (VOC)	5	4	14	7	7	5	3	45

V Emission standards for existing municipal solid waste landfills that are no less stringent than those in the emission guidelines. (40 CFR 60.24(b)(1), (c); and 40 CFR 60.33f, 60.36f)

The EPA regulations require a state plan to implement emission standards for existing MSW landfills. The State emission standards must (with certain limited exceptions) be as stringent as those required in the EPA emission guidelines. These guidelines set specific requirements regarding the type of standards that a State must adopt, including: allowable emission rates; emission levels at which a gas collection and control system must be installed; the characteristics and performance of the gas collection and control system; methods to be used in determining whether a gas collection and control system complies with performance requirements.

Maricopa County Air Pollution Control Regulation, Regulation III, Control of Air Contaminants, Rule 321: Municipal Solid Waste Landfills was originally adopted by the Board on May 14, 1997. Rule 321 implemented the EPA's new source performance standards (NSPS) for the Federal Emission Guidelines for 40 CFR 60, Subpart Cc-Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills. (61 Fed. Reg. 9919, Mar. 12, 1996). Rule 321, Section 301 *Standards of Performance For MSW Landfills* states:

> The federal standards of performance for municipal solid waste landfills set forth in 40 CFR Part 60, Subpart WWW is adopted as codified on July 1, 2016, and all accompanying appendices, excluding 40 CFR 60.750, are adopted and incorporated

by reference with the amendments and revisions set forth in this section. This adoption by reference includes no future editions or revisions. Each owner or operator of an affected facility shall comply with the requirements of 40 CFR Part 60, Subpart WWW as adopted and, where applicable, revised herein.

The MCAQD is planning to revise Rule 321 to reflect the requirements in 40 CFR 60, Subpart Cf-Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills as promulgated August 29, 2016 (81 Fed. Reg. 59313).

VI The MCAQD process, as stipulated in 40 CFR Part 60, Subpart Cf, for review and approval of site-specific gas collection and control system design plans. (40 CFR 60.36f(d))

The EPA regulations require a State plan to have a process for reviewing the gas collection and control system design plans of specific existing MSW landfills when a facility crosses the regulatory emissions threshold for installation of a gas collection and control system.

The MCAQD is planning to revise Rule 321 to reflect the requirements in 40 CFR 60, Subpart Cf-Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills as promulgated August 29, 2016 (81 Fed. Reg. 59313).

VII Compliance schedules, extending no later than 30 months after the date the annual non-methane organic compound emission rate reaches or exceeds 34 megagrams (Mg) per year. (40 CFR 60.24(a), (e); and 40 CFR 60.32f)

The EPA regulations require a State plan to provide for schedules that regulated MSW landfill sources must adhere to when they are required to install emission control systems.

The MCAQD is planning to revise Rule 321 to reflect the requirements in 40 CFR 60, Subpart Cf-Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills as promulgated August 29, 2016 (81 Fed. Reg. 59313).

VIII Testing, monitoring, recordkeeping, and reporting requirements. (40 CFR 60.25(b) and 40 CFR 60.34f, 60.35f, 60.37f, 60.38f, 60.39f, 60.40f)

The EPA regulations require a State plan to provide for MSW landfill sources to conduct testing, monitoring, recordkeeping, and reporting as called for by the EPA emission guidelines.

The MCAQD is proposing to revise Rule 321 to reflect the requirements in 40 CFR 60, Subpart Cf-Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills as promulgated August 29, 2016 (81 Fed. Reg. 59313).

IX Adoption of state plan; Record of public hearing(s) on the MCAQD plan. (40 CFR

60.23)

In adopting a state plan, the EPA regulations require a State plan submittal to demonstrate compliance with federal requirements for a public hearing on a proposed plan. These requirements are specified at 40 CFR § 60.23(c), (d), and (f).

The MCAQD's record of public hearing(s) on the MCAQD plan include the following. See also Appendix O of this document.

1) Notice of the public hearing that appeared in the *Arizona Business Gazette* and *The Record Reporter*, as well as evidence that the notice was circulated electronically to the email list serve of the GovDelivery at least 30 days prior to the Maricopa County Board of Supervisor's hearing on adoption of the plan. These notices prominently advertised within Phoenix and Maricopa County the date, time and place of the hearing.

2) Information in the above notices stated that a draft of the plan was made available for public inspection both at the MCAQD offices in Phoenix, Arizona and via the internet.

3) The hearing documents included information that the notice of the hearing was provided to the EPA Regional Administrator, local affected solid waste agencies, and the Arizona Department of Environmental Quality.

4) A certified copy of the action taken by the Board at a public hearing that includes a transcript of the hearing, testimony and exhibits that were presented.

(e) The State shall prepare and retain, for a minimum of 2 years, a record of each hearing for inspection by any interested party. The record shall contain, as a minimum, a list of witnesses together with the text of each presentation.

X Provision for annual MCAQD progress reports to the EPA on implementation of the MCAQD plan. (40 CFR 60.25(e) and (f))

The EPA regulations require states to submit annual progress reports on the progress of plan enforcement.

The MCAQD will submit annual progress reports to the EPA documenting the progress of plan according to 40 CFR 60.25(e) and (f).

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Appendices

Appendix A: Landfills subject to 40 CFR 60, Subpart Cf

Appendix B: An inventory of potential non-methane organic compounds (NMOC) emissions from existing MSW landfills within the jurisdiction of the MCAQD or Emission Inventory for Maricopa County MSW Landfills

Appendix C: LandGEM Emissions for MSW landfills within Maricopa County

Appendix D: The "correlated" inventory between 40 CFR Part 60, Subpart Cc and 40 CFR 60, Subpart Cf.

Appendix E: Maricopa County Air Pollution Control Regulations, Regulation III-Control of Air Contaminants, Rule 321, *Municipal Solid Waste Landfills.*

Appendix F: Maricopa County Air Pollution Control Regulations, Regulation III-Control of Air Contaminants, Rule 360, *New Source Performance Standards*.

Appendix G: Municipal Solid Waste Landfills, Volume 2: Summary of the Requirements for Section 111(d) State Plans for Implementing the Municipal Solid Waste Landfills Emission Guidelines.

Appendix H: Clean Air Act Section 111(d)

Appendix I: 40 CFR 60, Subpart B-Adoption and Submittal of State Plans for Designated Facilities

Appendix J: 40 CFR 60, Subpart Cc

Appendix K: 40 CFR 60, Subpart Cf

Appendix L: 40 CFR 60, Subpart WWW

Appendix M: 40 CFR 60 Subpart XXX

Appendix N: Key Elements of an Acceptable Section 111(d) State Plan

Appendix O: A Record Of Public Hearing(s) On The MCAQD Plan.

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Appendix A

Maricopa County MSW Landfills subject to

40 CFR 60, Subpart Cf

Appendix B

An inventory of potential non-methane organic compounds (NMOC) emissions from existing MSW landfills within the jurisdiction of the MCAQD or Emission Inventory for Maricopa County MSW Landfills

Appendix C

LandGEM Emissions for MSW Landfills

Within Maricopa County

Appendix D

The "correlated" inventory between

40 CFR Part 60, Subpart Cc and 40 CFR 60, Subpart Cf.

Appendix E

Maricopa County Air Pollution Control Regulations

Regulation III-Control of Air Contaminants

Rule 321

Municipal Solid Waste Landfills.

As accessed February 14, 2017, at:

https://www.maricopa.gov/1951/Adopted-Rules

MARICOPA COUNTY
AIR POLLUTION CONTROL REGULATIONS
REGULATION III – CONTROL OF AIR CONTAMINANTS

RULE 321
MUNICIPAL SOLID WASTE LANDFILLS

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SECTION 500 – MONITORING AND RECORDS (NOT APPLICABLE)

Adopted 05/14/1997; Revised 03/01/2000; Revised 03/07/2001; Revised 11/19/2003; Revised 03/15/2006; Revised 12/17/2008; Revised 09/16/2009; Revised 07/07/2010; Revised 08/17/2011; Revised 07/25/2012; Revised 03/26/2014; Revised 11/05/2014; Revised 11/18/2015; and **Revised 11/02/2016**.

DRAFT-For Review And Discussion-DRAFT
March 10, 2017

REGULATION III – CONTROL OF AIR CONTAMINANTS

RULE 321
MUNICIPAL SOLID WASTE LANDFILLS

SECTION 100 – GENERAL

101 PURPOSE: To limit the emission of non-methane organic compounds from municipal solid waste landfills.

102 APPLICABILITY: The provisions of this rule shall apply to each municipal solid waste landfill for which construction, reconstruction, or modification commenced prior to May 30, 1991, and which has accepted waste at any time since November 8, 1987, or has additional design capacity available for future waste deposition.

103 AVAILABILITY OF INFORMATION: Copies of 40 CFR Part 60, Subpart WWW – Standards of Performance for Municipal Solid Waste Landfills, are available as listed:

a. Maricopa County Air Quality Department, 1001 N. Central Ave, Suite 125, Phoenix, AZ, 85004.

b. Maricopa County Rules are available electronically at http://www.maricopa.gov/aq.

c. EPA documents are available electronically at http://www.gpo.gov/fdsys/browse/collectionCfr.action?collectionCode=CFR.

d. ASTM standards are available from ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428, or from its website at www.astm.org.

SECTION 200 – DEFINITIONS: See Rule 100 of these rules for definitions of terms that are used but not specifically defined in this rule. For the purpose of this rule, the following definitions shall apply, in addition to those definitions found in Rule 100 (General Provisions and Definitions) of these rules. In the event of any inconsistency between any of the Maricopa County air pollution control rules, the definitions in this rule take precedence.

201 ADMINISTRATOR: The Control Officer, except that the Control Officer shall not be empowered to approve alternative or equivalent test methods.

202 AFFECTED FACILITY: Any municipal solid waste landfill to which this rule is applicable.

203 COMMENCED: State or condition where an owner or operator has undertaken a continuous program of construction; or where an owner or operator has entered into a contractual obligation to undertake and complete such a program.

204 CONSTRUCTION: The fabrication, erection, or installation of an affected facility.

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205 MODIFICATION: Any physical change in, or change in the method of operation of, an affected facility which would result in a change in actual emissions.

206 MUNICIPAL SOLID WASTE LANDFILL (MSW LANDFILL): An entire, publicly or privately owned, disposal facility in a contiguous geographical space where household waste is placed in or on land. Portions of a MSW landfill may be separated by access roads.

207 NMOC: Non-methane organic compound.

208 OWNER OR OPERATOR: Any person who owns, leases, operates, controls, or supervises an affected facility.

SECTION 300 – STANDARDS

301 STANDARDS OF PERFORMANCE FOR MSW LANDFILLS The federal standards of performance for municipal solid waste landfills set forth in 40 CFR Part 60, Subpart WWW is adopted as codified on July 1, 2016, and all accompanying appendices, excluding 40 CFR 60.750, are adopted and incorporated by reference with the amendments and revisions set forth in this section. This adoption by reference includes no future editions or revisions. Each owner or operator of an affected facility shall comply with the requirements of 40 CFR Part 60, Subpart WWW as adopted and, where applicable, revised herein.

301.1 Collection and Control System Design Plan: 40 CFR 60.752(b)(2)(i) is amended to read: "Submit a collection and control design plan prepared by a professional engineer to the Administrator for approval not later than 12 months after submittal of the initial NMOC emission rate report."

301.2 Design Capacity Report: 40 CFR 60.757(a) is amended to read "Each owner or operator of an affected facility shall submit an initial design capacity report to the Administrator within 90 days from May 14, 1997." 40 CFR 60.757(a)(1) is deleted.

301.3 NMOC Emission Rate Report: 40 CFR 60.757(b) is amended to read "Each owner or operator of an affected facility shall submit an NMOC emission rate report to the Administrator initially and annually thereafter, except as provided for in paragraphs (b)(1)(ii) or (b)(3) of this section. The Administrator may request such additional information as may be necessary to verify the reported NMOC emission rate." 40 CFR 60.757(b)(1)(i) is amended to read: "The initial NMOC emission rate report shall be submitted within 90 days from May 14, 1997 and may be combined with the initial design capacity report required in paragraph (a) of this section. Subsequent NMOC emission rate reports shall be submitted annually thereafter, except as provided for in paragraphs (b)(1)(ii) and (b)(3) of this section."

302 DELAYED APPLICABILITY: For an affected facility that first becomes subject to the collection and control system requirement of 40 CFR 60.752 after May 14, 1997, the design plan shall be due not later than 12 months after submittal or scheduled submittal of an NMOC emission rate report of 50 megagrams (55.12 tons) per year or more.

SECTION 400 – ADMINISTRATIVE REQUIREMENTS (NOT APPLICABLE)

SECTION 500 – MONITORING AND RECORDS (NOT APPLICABLE)

Appendix F

Maricopa County Air Pollution Control Regulations

Regulation III-Control of Air Contaminants

Rule 360

New Source Performance Standards

As accessed February 14, 2017, at:

https://www.maricopa.gov/DocumentCenter/View/5283

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March 10, 2017

MARICOPA COUNTY
AIR POLLUTION CONTROL REGULATIONS
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RULE 360
NEW SOURCE PERFORMANCE STANDARDS

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SECTION 500 – MONITORING AND RECORDS (NOT APPLICABLE)

Revised 07/13/1988; Revised 04/06/1992; Revised 11/20/1996; Revised 05/14/1997; Revised 08/19/1998; Revised 04/07/1999; Revised 03/01/2000; Revised 03/07/2001; Revised 11/19/2003; Revised 03/15/2006; Revised 12/17/2008; Revised 09/16/2009; Revised 07/07/2010; Revised 08/17/2011; Revised 07/25/2012; Revised 03/26/2014; Revised 11/05/2014; Revised 11/18/2015; and **Revised 11/02/2016**.

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DRAFT-For Review And Discussion-DRAFT
March 10, 2017

MARICOPA COUNTY
AIR POLLUTION CONTROL REGULATIONS
REGULATION III – CONTROL OF AIR CONTAMINANTS

RULE 360
NEW SOURCE PERFORMANCE STANDARDS

SECTION 100 – GENERAL

101 PURPOSE: To establish acceptable design and performance criteria for specified new or modified emission sources.

102 APPLICABILITY: The provisions of this rule apply to the owner or operator of any stationary source which contains an affected facility on which the construction, reconstruction, or a modification is commenced after the date of publication of any standard applicable to such facility in 40 CFR Part 60 and for which federal delegation of the implementation and enforcement of the standards to the Maricopa County Air Quality Department (department) has been accomplished. Any such stationary source must also comply with other Maricopa County Air Pollution Control Regulations.

103 AVAILABILITY OF INFORMATION: Copies of all 40 CFR, Part 60 revisions currently enforced by the department are available as listed:

a. Maricopa County Air Quality Department, 1001 N. Central Ave, Suite 125, Phoenix, AZ, 85004.

b. Maricopa County Rules are available electronically at http://www.maricopa.gov/aq.

c. EPA documents are available electronically at http://www.gpo.gov/fdsys/browse/collectionCfr.action?collectionCode=CFR.

d. ASTM standards are available from ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428, or from its website at www.astm.org.

104 FEDERAL DELEGATION AUTHORITY: The department shall enforce the federal new source performance standards (NSPS) (40 CFR Part 60) listed in Section 300 of this rule which have been delegated to the County by the United States Environmental Protection Agency (EPA) for such enforcement. The department may, in addition, enforce such other NSPS as delegated for such enforcement by the EPA to the County.

SECTION 200 – DEFINITIONS: For the purpose of this rule, the following definitions shall apply, in addition to those definitions found in Rule 100 (General Provisions and Definitions) of these rules. In the event of any inconsistency between any of the Maricopa County air pollution control rules, the definitions in this rule take precedence.

201 ADMINISTRATOR: As used in Part 60, Title 40, Code of Federal Regulations, shall mean

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the Control Officer, except that the Control Officer shall not be empowered to approve alternate or equivalent test methods or alternative standards/work practices, or other nondelegable authorities such as those listed in 40 CFR 60.4(d), except as specifically provided in each subpart.

202 AFFECTED FACILITY – With reference to a stationary source, any apparatus to which a standard is applicable.

203 COMMENCED: With respect to the definition of "new source" in Section 111(a)(2) of the Act, that an owner or operator has undertaken a continuous program of construction, reconstruction, or modification or that an owner or operator has entered into a contracted obligation to undertake and complete, within a reasonable time, a continuous program of construction, reconstruction or modification.

204 CONSTRUCTION: The fabrication, erection, or installation of an affected facility.

205 MODIFICATION: Any physical change in, or change in the method of operation of, an existing facility which increases the amount of any contaminant (to which a standard applies) emitted into the atmosphere by that facility or which results in the emission of any air contaminant (to which a standard applies) into the atmosphere not previously emitted.

206 OWNER OR OPERATOR: Any person who owns, leases, operates, controls, or supervises an affected facility or a stationary source of which an affected facility is a part.

207 STANDARD: A standard of performance promulgated under this rule.

208 STATIONARY SOURCE: Any building, structure, facility, or installation which emits or may emit any air pollutant.

SECTION 300 – STANDARDS

301 ADOPTED FEDERAL STANDARDS: The following federal regulations located in the U.S. Code of Federal Regulations, Part 60 of Title 40, Subchapter C (CFR) as codified on July 1, 2016, are herein incorporated by reference in Maricopa County's Air Pollution Control Regulations. This incorporation by reference includes no future editions or amendments. Each owner or operator subject to the requirements of the following subparts shall comply with the requirements of those subparts and the additional requirements set forth herein. Incorporation by reference does not include nondelegable functions of the EPA Administrator.

301.1 Subpart A—General Provisions; exclude any sections dealing with equivalency determinations or innovative technology waivers, as covered in Sections 111(h)(3) and 111(j) respectively of the Clean Air Act.

301.2 Subpart D—Standards of Performance for Fossil-Fuel-Fired Steam Generators for

which Construction is Commenced after August 17, 1971.

301.3 Subpart Da—Standards of Performance for Electric Utility Steam Generating Units for which Construction is Commenced after September 18, 1978.

301.4 Subpart Db—Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units.

301.5 Subpart Dc—Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units.

301.6 Subpart E—Standards of Performance for Incinerators.

301.7 Subpart Ea—Standards of Performance for Municipal Waste Combustors for which Construction is Commenced after December 20, 1989 and on or before September 20, 1994.

301.8 Subpart Eb—Standards of Performance for Large Municipal Waste Combustors for which Construction is Commenced after September 20, 1994 or for which Modification or Reconstruction is Commenced after June 19, 1996.

301.9 Subpart Ec—Standards of Performance for Hospital/Medical/Infectious Waste Incinerators for which Construction is Commenced after June 20, 1996.

301.10 Subpart F—Standards of Performance for Portland Cement Plants.

301.11 Subpart G—Standards of Performance for Nitric Acid Plants.

301.12 Subpart Ga—Standards of Performance for Nitric Acid Plants for Which Construction, Reconstruction, or Modification Commenced After October 14, 2011.

301.13 Subpart H—Standards of Performance for Sulfuric Acid Plants.

301.14 Subpart I—Standards of Performance for Hot Mix Asphalt Facilities.

301.15 Subpart J—Standards of Performance for Petroleum Refineries.

301.16 Subpart Ja—Standards of Performance for Petroleum Refineries for which Construction, Reconstruction, or Modification Commenced after May 14, 2007.

301.17 Subpart K—Standards of Performance for Storage Vessels for Petroleum Liquids for which Construction, Reconstruction, or Modification Commenced after June 11, 1973, and prior to May 19, 1978.

301.18 Subpart Ka—Standards of Performance for Storage Vessels for Petroleum Liquids for which Construction, Reconstruction, or Modification Commenced

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after May 18, 1978, and prior to July 23, 1984.

301.19 Subpart Kb—Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for which Construction, Reconstruction, or Modification Commenced after July 23, 1984.

301.20 Subpart L—Standards of Performance for Secondary Lead Smelters.

301.21 Subpart M—Standards of Performance for Secondary Brass and Bronze Production Plants.

301.22 Subpart N—Standards of Performance for Primary Emissions from Basic Oxygen Process Furnaces for which Construction Commenced after June 11, 1973.

301.23 Subpart Na—Standards of Performance for Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for which Construction Commenced after January 20, 1983.

301.24 Subpart O—Standards of Performance for Sewage Treatment Plants.

301.25 Subpart P—Standards of Performance for Primary Copper Smelters.

301.26 Subpart Q—Standards of Performance for Primary Zinc Smelters.

301.27 Subpart R—Standards of Performance for Primary Lead Smelters.

301.28 Subpart S—Standards of Performance for Primary Aluminum Reduction Plants.

301.29 Subpart T—Standards of Performance for the Phosphate Fertilizer Industry: Wet-Process Phosphoric Acid Plants.

301.30 Subpart U—Standards of Performance for the Phosphate Fertilizer Industry: Superphosphoric Acid Plants.

301.31 Subpart V—Standards of Performance for the Phosphate Fertilizer Industry: Diammonium Phosphate Plants.

301.32 Subpart W—Standards of Performance for the Phosphate Fertilizer Industry: Triple Superphosphate Plants.

301.33 Subpart X—Standards of Performance for the Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities.

301.34 Subpart Y—Standards of Performance for Coal Preparation and Processing Plants.

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301.35 Subpart Z—Standards of Performance for Ferroalloy Production Facilities.

301.36 Subpart AA—Standards of Performance for Steel Plants: Electric Arc Furnaces Constructed after October 21, 1974, and on or before August 17, 1983.

301.37 Subpart AAa—Standards of Performance for Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed after August 17, 1983.

301.38 Subpart BB—Standards of Performance for Kraft Pulp Mills.

301.39 Subpart BBa— Standards of Performance for Kraft Pulp Mill Affected Sources for Which Construction, Reconstruction, or Modification Commenced After May 23, 2013.

301.40 Subpart CC—Standards of Performance for Glass Manufacturing Plants.

301.41 Subpart DD—Standards of Performance for Grain Elevators.

301.42 Subpart EE—Standards of Performance for Surface Coating of Metal Furniture.

301.43 Subpart FF—(Reserved)

301.44 Subpart GG—Standards of Performance for Stationary Gas Turbines.

301.45 Subpart HH—Standards of Performance for Lime Manufacturing Plants.

301.46 Subpart II—(Reserved)

301.47 Subpart JJ—(Reserved)

301.48 Subpart KK—Standards of Performance for Lead-Acid Battery Manufacturing Plants.

301.49 Subpart LL—Standards of Performance for Metallic Mineral Processing Plants.

301.50 Subpart MM—Standards of Performance for Automobile and Light Duty Truck Surface Coating Operations.

301.51 Subpart NN—Standards of Performance for Phosphate Rock Plants.

301.52 Subpart OO—(Reserved)

301.53 Subpart PP—Standards of Performance for Ammonium Sulfate Manufacture.

301.54 Subpart QQ—Standards of Performance for the Graphic Arts Industry: Publication Rotogravure Printing.

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301.55 Subpart RR—Standards of Performance for Pressure Sensitive Tape and Label Surface Coating Operations.

301.56 Subpart SS—Standards of Performance for Industrial Surface Coating: Large Appliances.

301.57 Subpart TT—Standards of Performance for Metal Coil Surface Coating.

301.58 Subpart UU—Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture.

301.59 Subpart VV—Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for which Construction, Reconstruction, or Modification Commenced after January 5, 1981, and on or before November 7, 2006.

301.60 Subpart VVa—Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for which Construction, Reconstruction, or Modification Commenced after November 7, 2006.

301.61 Subpart WW—Standards of Performance for the Beverage Can Surface Coating Industry.

301.62 Subpart XX—Standards of Performance for Bulk Gasoline Terminals.

301.63 Subpart YY—(Reserved)

301.64 Subpart ZZ—(Reserved)

301.65 Subpart AAA—Standards of Performance for New Residential Wood Heaters.

301.66 Subpart BBB—Standards of Performance for the Rubber Tire Manufacturing Industry.

301.67 Subpart CCC—(Reserved)

301.68 Subpart DDD—Standards of Performance for Volatile Organic Compound (VOC) Emissions from the Polymer Manufacturing Industry.

301.69 Subpart EEE—(Reserved)

301.70 Subpart FFF—Standards of Performance for Flexible Vinyl and Urethane Coating and Printing.

301.71 Subpart GGG—Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries for which Construction, Reconstruction, or Modification Commenced after January 4, 1983, and on or before November 7, 2006.

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301.72 Subpart GGGa—Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries for which Construction, Reconstruction, or Modification Commenced after November 7, 2006.

301.73 Subpart HHH—Standards of Performance for Synthetic Fiber Production Facilities.

301.74 Subpart III—Standards of Performance for Volatile Organic Compound (VOC) Emissions from the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes.

301.75 Subpart JJJ—Standards of Performance for Petroleum Dry Cleaners.

301.76 Subpart KKK—Standards of Performance for Equipment Leaks of VOC from Onshore Natural Gas Processing Plants.

301.77 Subpart LLL—Standards of Performance for Onshore Natural Gas Processing: SO_2 Emissions.

301.78 Subpart MMM—(Reserved)

301.79 Subpart NNN—Standards of Performance for Volatile Organic Compound (VOC) Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations.

301.80 Subpart OOO—Standards of Performance for Nonmetallic Mineral Processing Plants.

301.81 Subpart PPP—Standard of Performance for Wool Fiberglass Insulation Manufacturing Plants.

301.82 Subpart QQQ—Standards of Performance for VOC Emissions from Petroleum Refinery Wastewater Systems.

301.83 Subpart RRR—Standards of Performance for Volatile Organic Compound (VOC) Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes.

301.84 Subpart SSS—Standards of Performance for Magnetic Tape Coating Facilities.

301.85 Subpart TTT—Standards of Performance for Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines.

301.86 Subpart UUU—Standards of Performance for Calciners and Dryers in Mineral Industries.

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301.87 Subpart VVV—Standards of Performance for Polymeric Coating of Supporting Substrates Facilities.

301.88 Subpart WWW—Standards of Performance for Municipal Solid Waste Landfills.

301.89 Subpart XXX—(Reserved)

301.90 Subpart YYY—(Reserved)

301.91 Subpart ZZZ—(Reserved)

301.92 Subpart AAAA—Standards of Performance for Small Municipal Waste Combustion Units for which Construction is Commenced after August 30, 1999 or for which Modification or Reconstruction is Commenced after June 6, 2001.

301.93 Subpart CCCC—Standards of Performance for Commercial and Industrial Solid Waste Incineration Units for which Construction is Commenced after November 30, 1999 or for which Modification or Reconstruction is Commenced on or after June 1, 2001.

301.94 Subpart EEEE—Standards of Performance for Other Solid Waste Incineration Units for which Construction is Commenced after December 9, 2004, or for which Modification or Reconstruction is Commenced on or after June 16, 2006.

301.95 Subpart GGGG—(Reserved)

301.96 Subpart HHHH—(Reserved)

301.97 Subpart IIII—Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.

301.98 Subpart JJJJ—Standards of Performance for Stationary Spark Ignition Internal Combustion Engines.

301.99 Subpart KKKK—Standards of Performance for Stationary Combustion Turbines.

301.100 Subpart LLLL—Standards of Performance for New Sewage Sludge Incineration Units.

301.101 Subpart NNNN—(Reserved)

301.102 Subpart OOOO—Standards for Crude Oil and Natural Gas Production, Transmission and Distribution.

301.103 Subpart PPPP—(Reserved)

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301.104 Subpart QQQQ—Standards of Performance for New Residential Hydronic Heaters and Forced-Air Furnaces.

301.105 Subpart RRRR—(Reserved)

301.106 Subpart SSSS—(Reserved)

301.107 Subpart TTTT—Standards of Performance for Greenhouse Gas Emissions for Electric Generating Units

302 ADDITIONAL REQUIREMENTS: From the general standards identified in Section 301 of this rule, delete 40 CFR 60.4, §60.5, and §60.6. All requests, reports, applications, submittals, and other communications to the Control Officer pursuant to this rule shall be submitted to the Maricopa County Air Quality Department, 1001 N. Central Ave., Suite 125, Phoenix, AZ, 85004.

SECTION 400 – ADMINISTRATIVE REQUIREMENTS (NOT APPLICABLE)

SECTION 500 – MONITORING AND RECORDS (NOT APPLICABLE)

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Appendix G

Municipal Solid Waste Landfills, Volume 2: Summary of the Requirements for Section 111(d) State Plans for Implementing the Municipal Solid Waste Landfills Emission Guidelines.

This document can be accessed at
https://nepis.epa.gov/Exe/ZyNET.exe/2000F3BG.TXT?ZyActionD=ZyDocument&Client=EPA&Index=1995+Thru+1999&Docs=&Query=&Time=&EndTime=&SearchMethod=1&TocRestrict=n&Toc=&TocEntry=&QField=&QFieldYear=&QFieldMonth=&QFieldDay=&IntQFieldOp=0&ExtQFieldOp=0&XmlQuery=&File=D%3A%5Czyfiles%5CIndex%20Data%5C95thru99%5CTxt%5C00000012%5C2000F3BG.txt&User=ANONYMOUS&Password=anonymous&SortMethod=h%7C-&MaximumDocuments=1&FuzzyDegree=0&ImageQuality=r75g8/r75g8/x150y150g16/i425&Display=hpfr&DefSeekPage=x&SearchBack=ZyActionL&Back=ZyActionS&BackDesc=Results%20page&MaximumPages=1&ZyEntry=1&SeekPage=x&ZyPURL

Appendix H

Clean Air Act Section 111(d)

And

42 U.S.C. §7411

Standards of Performance for New Stationary Sources

As accessed February 14, 2017, at:

https://www.gpo.gov/fdsys/pkg/USCODE-2013-title42/html/USCODE-2013-title42-chap85-subchapI-partA-sec7411.htm

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DRAFT-For Review And Discussion-DRAFT
March 10, 2017

Clean Air Act Section 111(d)

And

42 U.S.C. §7411

Standards of Performance for New Stationary Sources

(d) Standards of performance for existing sources; remaining useful life of source

(1) The Administrator shall prescribe regulations which shall establish a procedure similar to that provided by section 7410 of this title under which each State shall submit to the Administrator a plan which (A) establishes standards of performance for any existing source for any air pollutant (i) for which air quality criteria have not been issued or which is not included on a list published under section 7408(a) of this title or emitted from a source category which is regulated under section 7412 of this title but (ii) to which a standard of performance under this section would apply if such existing source were a new source, and (B) provides for the implementation and enforcement of such standards of performance. Regulations of the Administrator under this paragraph shall permit the State in applying a standard of performance to any particular source under a plan submitted under this paragraph to take into consideration, among other factors, the remaining useful life of the existing source to which such standard applies.

(2) The Administrator shall have the same authority—

(A) to prescribe a plan for a State in cases where the State fails to submit a satisfactory plan as he would have under section 7410(c) of this title in the case of failure to submit an implementation plan, and

(B) to enforce the provisions of such plan in cases where the State fails to enforce them as he would have under sections 7413 and 7414 of this title with respect to an implementation plan.

In promulgating a standard of performance under a plan prescribed under this paragraph, the Administrator shall take into consideration, among other factors, remaining useful lives of the sources in the category of sources to which such standard applies.

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Appendix I

40 CFR 60, Subpart B

Adoption and Submittal of State Plans for Designated Facilities

As accessed February 14, 2017, at:

http://www.ecfr.gov/cgi-bin/text-idx?SID=9e520e5fb02f99b601dd36ef7e3a700f&mc=true&node=sp40.7.60.b&rgn=div6

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40 CFR 60, Subpart B—Adoption and Submittal of State Plans for Designated Facilities

SOURCE: 40 FR 53346, Nov. 17, 1975, unless otherwise noted.

§60.20 Applicability.

The provisions of this subpart apply to States upon publication of a final guideline document under §60.22(a).

§60.21 Definitions.

Terms used but not defined in this subpart shall have the meaning given them in the Act and in subpart A:

(a) *Designated pollutant* means any air pollutant, the emissions of which are subject to a standard of performance for new stationary sources, but for which air quality criteria have not been issued and that is not included on a list published under section 108(a) or section 112(b)(1)(A) of the Act.

(b) *Designated facility* means any existing facility (see §60.2(aa)) which emits a designated pollutant and which would be subject to a standard of performance for that pollutant if the existing facility were an affected facility (see §60.2(e)).

(c) *Plan* means a plan under section 111(d) of the Act which establishes emission standards for designated pollutants from designated facilities and provides for the implementation and enforcement of such emission standards.

(d) *Applicable plan* means the plan, or most recent revision thereof, which has been approved under §60.27(b) or promulgated under §60.27(d).

(e) *Emission guideline* means a guideline set forth in subpart C of this part, or in a final guideline document published under §60.22(a), which reflects the degree of emission reduction achievable through the application of the best system of emission reduction which (taking into account the cost of such reduction) the Administrator has determined has been adequately demonstrated for designated facilities.

(f) *Emission standard* means a legally enforceable regulation setting forth an allowable rate of emissions into the atmosphere, establishing an allowance system, or prescribing equipment specifications for control of air pollution emissions.

(g) *Compliance schedule* means a legally enforceable schedule specifying a date or dates by which a source or category of sources must comply with specific emission standards contained in a plan or with any increments of progress to achieve such compliance.

(h) *Increments of progress* means steps to achieve compliance which must be taken by an owner or operator of a designated facility, including:

(1) Submittal of a final control plan for the designated facility to the appropriate air pollution control agency;

(2) Awarding of contracts for emission control systems or for process modifications, or issuance of orders for the purchase of component parts to accomplish emission control or process modification;

(3) Initiation of on-site construction or installation of emission control equipment or process change;

(4) Completion of on-site construction or installation of emission control equipment or process change; and

(5) Final compliance.

(i) *Region* means an air quality control region designated under section 107 of the Act and described in part 81 of this chapter.

(j) *Local agency* means any local governmental agency.

[40 FR 53346, Nov. 17, 1975, as amended at 70 FR 28649, May 18, 2005; 77 FR 9447, Feb. 16, 2012]

§60.22 Publication of guideline documents, emission guidelines, and final compliance times.

(a) Concurrently upon or after proposal of standards of performance for the control of a designated pollutant from affected facilities, the Administrator will publish a draft guideline document containing information pertinent to control of the designated pollutant form designated facilities. Notice of the availability of the draft guideline document will be published in the FEDERAL REGISTER and public comments on its contents will be invited. After consideration of public comments and upon or after promulgation of standards of performance for control of a designated pollutant from affected facilities, a final guideline document will be published and notice of its availability will be published in the FEDERAL REGISTER.

(b) Guideline documents published under this section will provide information for the development of State plans, such as:

(1) Information concerning known or suspected endangerment of public health or welfare caused, or contributed to, by the designated pollutant.

(2) A description of systems of emission reduction which, in the judgment of the Administrator, have been adequately demonstrated.

(3) Information on the degree of emission reduction which is achievable with each system, together with information on the costs and environmental effects of applying each system to designated facilities.

(4) Incremental periods of time normally expected to be necessary for the design, installation, and startup of identified control systems.

(5) An emission guideline that reflects the application of the best system of emission reduction (considering the cost of such reduction) that has been adequately demonstrated for designated facilities, and the time within which compliance with emission standards of equivalent stringency can be achieved. The Administrator will specify different emission guidelines or compliance times or both for different sizes, types, and classes of designated facilities when costs of control, physical limitations, geographical location, or similar factors make subcategorization appropriate. (6) Such other available information as the Administrator determines may contribute to the formulation of State plans.

(c) Except as provided in paragraph (d)(1) of this section, the emission guidelines and compliance times referred to in paragraph (b)(5) of this section will be proposed for comment upon publication of the draft guideline document, and after consideration of comments will be promulgated in subpart C of this part with such modifications as may be appropriate.

(d)(1) If the Administrator determines that a designated pollutant may cause or contribute to endangerment of public welfare, but that adverse effects on public health have not been demonstrated, he will include the determination in the draft guideline document and in the FEDERAL REGISTER notice of its availability. Except as provided in paragraph (d)(2) of this section, paragraph (c) of this section shall be inapplicable in such cases.

(2) If the Administrator determines at any time on the basis of new information that a prior determination under paragraph (d)(1) of this section is incorrect or no longer correct, he will publish notice of the determination in the FEDERAL REGISTER, revise the guideline document as necessary under paragraph (a) of this section, and propose and promulgate emission guidelines and compliance times under paragraph (c) of this section.

[40 FR 53346, Nov. 17, 1975, as amended at 54 FR 52189, Dec. 20, 1989]

§60.23 Adoption and submittal of State plans; public hearings.

(a)(1) Unless otherwise specified in the applicable subpart, within 9 months after notice of the availability of a final guideline document is published under §60.22(a), each State shall adopt and submit to the Administrator, in accordance with §60.4 of subpart A of this part, a plan for the control of the designated pollutant to which the guideline document applies.

(2) Within nine months after notice of the availability of a final revised guideline document is published as provided in §60.22(d)(2), each State shall adopt and submit to the Administrator any plan revision necessary to meet the requirements of this subpart.

(b) If no designated facility is located within a State, the State shall submit a letter of certification to that effect to the Administrator within the time specified in paragraph (a) of this section. Such certification shall exempt the State from the requirements of this subpart for that designated pollutant.

(c)(1) Except as provided in paragraphs (c)(2) and (c)(3) of this section, the State shall, prior to the adoption of any plan or revision thereof, conduct one or more public hearings within the State on such plan or plan revision.

(2) No hearing shall be required for any change to an increment of progress in an approved compliance schedule unless the change is likely to cause the facility to be unable to comply with the final compliance date in the schedule.

(3) No hearing shall be required on an emission standard in effect prior to the effective date of this subpart if it was adopted after a public hearing and is at least as stringent as the corresponding emission guideline specified in the applicable guideline document published under §60.22(a).

(d) Any hearing required by paragraph (c) of this section shall be held only after reasonable notice. Notice shall be given at least 30 days prior to the date of such hearing and shall include:

(1) Notification to the public by prominently advertising the date, time, and place of such hearing in each region affected;

(2) Availability, at the time of public announcement, of each proposed plan or revision thereof for public inspection in at least one location in each region to which it will apply;

(3) Notification to the Administrator;

(4) Notification to each local air pollution control agency in each region to which the plan or revision will apply; and

(5) In the case of an interstate region, notification to any other State included in the region.

(e) The State shall prepare and retain, for a minimum of 2 years, a record of each hearing for inspection by any interested party. The record shall contain, as a minimum, a list of witnesses together with the text of each presentation.

(f) The State shall submit with the plan or revision:

(1) Certification that each hearing required by paragraph (c) of this section was held in accordance with the notice required by paragraph (d) of this section; and

(2) A list of witnesses and their organizational affiliations, if any, appearing at the hearing and a brief written summary of each presentation or written submission.

(g) Upon written application by a State agency (through the appropriate Regional Office), the Administrator may approve State procedures designed to insure public participation in the matters for which hearings are required and public notification of the opportunity to participate if, in the judgment of the Administrator, the procedures, although different from the requirements of this subpart, in fact provide for adequate notice to and participation of the public. The Administrator may impose such conditions on his approval as he deems necessary. Procedures approved under this section shall be deemed to satisfy the requirements of this subpart regarding procedures for public hearings.

[40 FR 53346, Nov. 17, 1975, as amended at 60 FR 65414, Dec. 19, 1995]

§60.24 Emission standards and compliance schedules.

(a) Each plan shall include emission standards and compliance schedules.

(b) (1) Emission standards shall either be based on an allowance system or prescribe allowable rates of emissions except when it is clearly impracticable. Such cases will be identified in the guideline documents issued under §60.22. Where emission standards prescribing equipment specifications are established, the plan shall, to the degree possible, set forth the emission reductions achievable by implementation of such specifications, and may permit compliance by the use of equipment determined by the State to be equivalent to that prescribed.

(2) Test methods and procedures for determining compliance with the emission standards shall be specified in the plan. Methods other than those specified in appendix A to this part may be specified in the plan if shown to be equivalent or alternative methods as defined in §60.2 (t) and (u).

(3) Emission standards shall apply to all designated facilities within the State. A plan may

contain emission standards adopted by local jurisdictions provided that the standards are enforceable by the State.

(c) Except as provided in paragraph (f) of this section, where the Administrator has determined that a designated pollutant may cause or contribute to endangerment of public health, emission standards shall be no less stringent than the corresponding emission guideline(s) specified in subpart C of this part, and final compliance shall be required as expeditiously as practicable but no later than the compliance times specified in subpart C of this part.

(d) Where the Administrator has determined that a designated pollutant may cause or contribute to endangerment of public welfare but that adverse effects on public health have not been demonstrated, States may balance the emission guidelines, compliance times, and other information provided in the applicable guideline document against other factors of public concern in establishing emission standards, compliance schedules, and variances. Appropriate consideration shall be given to the factors specified in §60.22(b) and to information presented at the public hearing(s) conducted under §60.23(c).

(e)(1) Any compliance schedule extending more than 12 months from the date required for submittal of the plan must include legally enforceable increments of progress to achieve compliance for each designated facility or category of facilities. Unless otherwise specified in the applicable subpart, increments of progress must include, where practicable, each increment of progress specified in §60.21(h) and must include such additional increments of progress as may be necessary to permit close and effective supervision of progress toward final compliance.

(2) A plan may provide that compliance schedules for individual sources or categories of sources will be formulated after plan submittal. Any such schedule shall be the subject of a public hearing held according to §60.23 and shall be submitted to the Administrator within 60 days after the date of adoption of the schedule but in no case later than the date prescribed for submittal of the first semiannual report required by §60.25(e).

(f) Unless otherwise specified in the applicable subpart on a case-by-case basis for particular designated facilities or classes of facilities, States may provide for the application of less stringent emissions standards or longer compliance schedules than those otherwise required by paragraph (c) of this section, provided that the State demonstrates with respect to each such facility (or class of facilities):

(1) Unreasonable cost of control resulting from plant age, location, or basic process design;

(2) Physical impossibility of installing necessary control equipment; or

(3) Other factors specific to the facility (or class of facilities) that make application of a less stringent standard or final compliance time significantly more reasonable.

(g) Nothing in this subpart shall be construed to preclude any State or political subdivision thereof from adopting or enforcing (1) emission standards more stringent than emission guidelines specified in subpart C of this part or in applicable guideline documents or (2) compliance schedules requiring final compliance at earlier times than those specified in subpart C or in applicable guideline documents.

[40 FR 53346, Nov. 17, 1975, as amended at 60 FR 65414, Dec. 19, 1995; 65 FR 76384, Dec. 6,

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2000; 70 FR 28649, May 18, 2005; 71 FR 33398, June 9, 2006; 72 FR 59204, Oct. 19, 2007; 77 FR 9447, Feb. 16, 2012]

§60.25 Emission inventories, source surveillance, reports.

(a) Each plan shall include an inventory of all designated facilities, including emission data for the designated pollutants and information related to emissions as specified in appendix D to this part. Such data shall be summarized in the plan, and emission rates of designated pollutants from designated facilities shall be correlated with applicable emission standards. As used in this subpart, "correlated" means presented in such a manner as to show the relationship between measured or estimated amounts of emissions and the amounts of such emissions allowable under applicable emission standards.

(b) Each plan shall provide for monitoring the status of compliance with applicable emission standards. Each plan shall, as a minimum, provide for:

(1) Legally enforceable procedures for requiring owners or operators of designated facilities to maintain records and periodically report to the State information on the nature and amount of emissions from such facilities, and/or such other information as may be necessary to enable the State to determine whether such facilities are in compliance with applicable portions of the plan. Submission of electronic documents shall comply with the requirements of 40 CFR part 3—(Electronic reporting).

(2) Periodic inspection and, when applicable, testing of designated facilities.

(c) Each plan shall provide that information obtained by the State under paragraph (b) of this section shall be correlated with applicable emission standards (see §60.25(a)) and made available to the general public.

(d) The provisions referred to in paragraphs (b) and (c) of this section shall be specifically identified. Copies of such provisions shall be submitted with the plan unless:

(1) They have been approved as portions of a preceding plan submitted under this subpart or as portions of an implementation plan submitted under section 110 of the Act, and

(2) The State demonstrates:

(i) That the provisions are applicable to the designated pollutant(s) for which the plan is submitted, and

(ii) That the requirements of §60.26 are met.

(e) The State shall submit reports on progress in plan enforcement to the Administrator on an annual (calendar year) basis, commencing with the first full report period after approval of a plan or after promulgation of a plan by the Administrator. Information required under this paragraph must be included in the annual report required by §51.321 of this chapter.

(f) Each progress report shall include:

(1) Enforcement actions initiated against designated facilities during the reporting period, under any emission standard or compliance schedule of the plan.

(2) Identification of the achievement of any increment of progress required by the

applicable plan during the reporting period.

(3) Identification of designated facilities that have ceased operation during the reporting period.

(4) Submission of emission inventory data as described in paragraph (a) of this section for designated facilities that were not in operation at the time of plan development but began operation during the reporting period.

(5) Submission of additional data as necessary to update the information submitted under paragraph (a) of this section or in previous progress reports.

(6) Submission of copies of technical reports on all performance testing on designated facilities conducted under paragraph (b)(2) of this section, complete with concurrently recorded process data.

[40 FR 53346, Nov. 17, 1975, as amended at 44 FR 65071, Nov. 9, 1979; 70 FR 59887, Oct. 13, 2005]

§60.26 Legal authority.

(a) Each plan shall show that the State has legal authority to carry out the plan, including authority to:

(1) Adopt emission standards and compliance schedules applicable to designated facilities.

(2) Enforce applicable laws, regulations, standards, and compliance schedules, and seek injunctive relief.

(3) Obtain information necessary to determine whether designated facilities are in compliance with applicable laws, regulations, standards, and compliance schedules, including authority to require recordkeeping and to make inspections and conduct tests of designated facilities.

(4) Require owners or operators of designated facilities to install, maintain, and use emission monitoring devices and to make periodic reports to the State on the nature and amounts of emissions from such facilities; also authority for the State to make such data available to the public as reported and as correlated with applicable emission standards.

(b) The provisions of law or regulations which the State determines provide the authorities required by this section shall be specifically identified. Copies of such laws or regulations shall be submitted with the plan unless:

(1) They have been approved as portions of a preceding plan submitted under this subpart or as portions of an implementation plan submitted under section 110 of the Act, and

(2) The State demonstrates that the laws or regulations are applicable to the designated pollutant(s) for which the plan is submitted.

(c) The plan shall show that the legal authorities specified in this section are available to the State at the time of submission of the plan. Legal authority adequate to meet the requirements of paragraphs (a)(3) and (4) of this section may be delegated to the State under section 114 of the Act.

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(d) A State governmental agency other than the State air pollution control agency may be assigned responsibility for carrying out a portion of a plan if the plan demonstrates to the Administrator's satisfaction that the State governmental agency has the legal authority necessary to carry out that portion of the plan.

(e) The State may authorize a local agency to carry out a plan, or portion thereof, within the local agency's jurisdiction if the plan demonstrates to the Administrator's satisfaction that the local agency has the legal authority necessary to implement the plan or portion thereof, and that the authorization does not relieve the State of responsibility under the Act for carrying out the plan or portion thereof.

§60.27 Actions by the Administrator.

(a) The Administrator may, whenever he determines necessary, extend the period for submission of any plan or plan revision or portion thereof.

(b) After receipt of a plan or plan revision, the Administrator will propose the plan or revision for approval or disapproval. The Administrator will, within four months after the date required for submission of a plan or plan revision, approve or disapprove such plan or revision or each portion thereof.

(c) The Administrator will, after consideration of any State hearing record, promptly prepare and publish proposed regulations setting forth a plan, or portion thereof, for a State if:

(1) The State fails to submit a plan within the time prescribed;

(2) The State fails to submit a plan revision required by §60.23(a)(2) within the time prescribed; or

(3) The Administrator disapproves the State plan or plan revision or any portion thereof, as unsatisfactory because the requirements of this subpart have not been met.

(d) The Administrator will, within six months after the date required for submission of a plan or plan revision, promulgate the regulations proposed under paragraph (c) of this section with such modifications as may be appropriate unless, prior to such promulgation, the State has adopted and submitted a plan or plan revision which the Administrator determines to be approvable.

(e)(1) Except as provided in paragraph (e)(2) of this section, regulations proposed and promulgated by the Administrator under this section will prescribe emission standards of the same stringency as the corresponding emission guideline(s) specified in the final guideline document published under §60.22(a) and will require final compliance with such standards as expeditiously as practicable but no later than the times specified in the guideline document.

(2) Upon application by the owner or operator of a designated facility to which regulations proposed and promulgated under this section will apply, the Administrator may provide for the application of less stringent emission standards or longer compliance schedules than those otherwise required by this section in accordance with the criteria specified in §60.24(f).

(f) Prior to promulgation of a plan under paragraph (d) of this section, the Administrator will provide the opportunity for at least one public hearing in either:

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(1) Each State that failed to hold a public hearing as required by §60.23(c); or

(2) Washington, DC or an alternate location specified in the FEDERAL REGISTER.

[40 FR 53346, Nov. 17, 1975, as amended at 65 FR 76384, Dec. 6, 2000]

§60.28 Plan revisions by the State.

(a) Plan revisions which have the effect of delaying compliance with applicable emission standards or increments of progress or of establishing less stringent emission standards shall be submitted to the Administrator within 60 days after adoption in accordance with the procedures and requirements applicable to development and submission of the original plan.

(b) More stringent emission standards, or orders which have the effect of accelerating compliance, may be submitted to the Administrator as plan revisions in accordance with the procedures and requirements applicable to development and submission of the original plan.

(c) A revision of a plan, or any portion thereof, shall not be considered part of an applicable plan until approved by the Administrator in accordance with this subpart.

§60.29 Plan revisions by the Administrator.

After notice and opportunity for public hearing in each affected State, the Administrator may revise any provision of an applicable plan if:

(a) The provision was promulgated by the Administrator, and

(b) The plan, as revised, will be consistent with the Act and with the requirements of this subpart.

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Appendix J

40 CFR 60, Subpart Cc

Emission Guidelines and Compliance Times for

Municipal Solid Waste Landfills

This document can be accessed at http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&SID=9e520e5fb02f99b601dd36ef7e3a700f&mc=true&n=pt40.7.60&r=PART&ty=HTML#sp40.7.60.c_0c

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Appendix K

40 CFR 60, Subpart Cf

Emission Guidelines and Compliance Times for

Municipal Solid Waste Landfills

This document can be accessed at:

http://www.ecfr.gov/cgi-bin/text-idx?SID=3034bd85a340715b0abe47eaa456f3a9&mc=true&node=sp40.7.60.c_0f&rgn=div6

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Appendix L

40 CFR 60, Subpart WWW

Standards of Performance for Municipal Solid Waste Landfills

This document can be accessed at:

http://www.ecfr.gov/cgi-bin/text-idx?SID=3034bd85a340715b0abe47eaa456f3a9&mc=true&node=sp40.8.60.www&rgn=div6

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Appendix M

40 CFR 60 Subpart XXX

Standards of Performance for Municipal Solid Waste Landfills That Commenced Construction, Reconstruction, or Modification After July 17, 2014

This document can be accessed at:

http://www.ecfr.gov/cgi-bin/text-idx?SID=3034bd85a340715b0abe47eaa456f3a9&mc=true&node=sp40.8.60.xxx&rgn=div6

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DRAFT-For Review And Discussion-DRAFT
March 10, 2017

Appendix N

Key Elements of an Acceptable Section 111(d) State Plan

As identified in Appendix J of

Municipal Solid Waste Landfills, Volume 2:

Summary of the Requirements for

Section 111(d) State Plans for Implementing

The Municipal Solid Waste Landfills

Emission Guidelines

US EPA, Office of Air Quality

Research Triangle Park, NC 27711

EPA-456R/98-009

November 1998

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Key Elements of an Acceptable Section 111(d) State Plan

States must submit to the Environmental Protection Agency (EPA) State Plans to implement and enforce the Emission Guidelines promulgated for Municipal Solid Waste (MSW) landfills pursuant to Section 111(d) of the Act. Section 111(d) requires that the state submit the State Plan not later than 9 months after EPA promulgates the Emission Guidelines. EPA promulgated the Emission Guidelines (40 CFR Part 60, Subpart Cc) on March 12, 1996, thus, the State Plans are due no later than December 12, 1996.

States must adopt their State Plans according to state procedures prior to official submittal to EPA. *[60.23 (a)]* The official procedures for adopting and submitting State Plans are codified in 40 CFR Part 60, Subpart B. EPA promulgated the original provisions on November 17, 1975, and then amended them on December 19, 1995, to incorporate changes specific to solid waste incineration. These changes, which were necessary to conform with the solid waste incineration requirements under Section 129 of the Act, are not relevant to MSW landfills. Thus, the procedures described in the original provisions for adopting and submitting State Plans still apply to MSW landfills and are reflected in the key elements given below.

The following pages include information about legal authority, emission inventories, emission standards and other emission limitations, process for review of design plans, compliance schedules, public participation, source surveillance, compliance assurance, enforcement, as required by 40 CFR Part 60, Subparts B and Cc. In addition, cross-references to relevant sections of the subparts are provided.

A. **Legal Authority** *[60.26(a)]*

1. The State Plan shall include demonstration of the state's legal authority to:

   (a) adopt emission standards (enforceable conditions) and compliance schedules applicable to the designated facilities and designated pollutants for which the State Plan is submitted

   (b) enforce applicable laws, regulations, standards, and compliance schedules, and seek injunctive relief

   (c) obtain information necessary to determine compliance

   (d) require recordkeeping, make inspections, and conduct tests

   (e) require the use of monitors and require emission reports of owners or operators

   (f) make emission data publicly available *[60.26(a)]*

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2. The state must specifically identify the provisions above and include copies of the provisions of the law establishing such legal authority unless they have been approved as a portion of a previous Section 111(d) State Plan or SIP. To facilitate its review of State Plans, EPA encourages states to submit an opinion by the state's Attorney General as part of the demonstration required above. States may use previously submitted Attorney General opinions (for example, under Title V) to the extent those documents specifically address the requirements of Section 60.26 as they apply to the designated facilities and the designated pollutants. *[60.26(b)]*

3. The legal authority shown must be in effect at time of State Plan submission. *[60.26(c)]*

4. The state may authorize another state governmental agency to carry out a portion of the State Plan, provided the state demonstrates that the state governmental agency has adequate authority. *[60.26(e)]*

5. The state may authorize a local agency to carry out a portion of the State Plan provided that the state demonstrates that the local agency has adequate legal authority to implement that portion of the State Plan and the state is not relieved of responsibility. *[60.26(e)]*

If earlier demonstrations of legal authority by the state meet the requirements of § 60.26, the state will simply need to include copies of such demonstrations in the State Plan.

B. <u>Source and Emission Inventories</u>

The State Plan must include a complete source inventory of existing MSW landfills in the state that are regulated by the Emission Guidelines. *[60.25(a)]* The inventory must include the name and location of all existing landfills, whether open or closed, that have accepted waste since November 8, 1987 or have additional capacity for future waste acceptance. Landfills with design capacities both above and below the 2.5 million Mg/yr or 2.5 million M^3/yr design capacity cutoffs must be included. New landfills (i.e., those that commenced construction, modification, or reconstruction on or after May 30, 1991) do not have to be included in the inventory.

For each landfill in the source inventory, the State Plan must include emission data for the designated pollutants (MSW landfill emissions, measured as NMOC). *[60.25(a)]* Emission data must be included where available, but emission estimates can be used if emission data is not available. States can use emission estimation procedures from AP-42, "Compilation of Air Pollutant Emission Factors" to estimate landfill NMOC emission rates for the state inventory. (AP-42 procedures should not be used to determine applicability of, or compliance with, the Emission Guidelines.)

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In addition to the initial inventory, updates are required. *[60.25(f)(5]* The updated information is required to be submitted annually in the 51.321 reports. *[60.24(e)(1)]* The emission data should be submitted to the Aerometric Information Retrieval System (AIRS) *[51.321-51.323]*

C. Emission Standards

1. The emission standards shall be no less stringent than the Emission Guidelines. *[60.24(c)]*
   However, under certain limited conditions and on a case-by-case basis, states may apply less stringent emission standards or longer compliance schedules. This reduced stringency is allowed if the state demonstrates with respect to the designated facility or class of facilities that:

   a. the cost of control would be unreasonable because of plant age, location, or basic process design;
   b. it would be physically impossible to install necessary control equipment; or
   c. there are other factors specific to the facility or class of facilities that make application of a less stringent standard or final compliance time significantly more reasonable. *[60.24f]*

NOTE: Nothing in the Clean Air Act nor the CFR restricts the state from having standards and schedules more stringent than the Emission Guidelines. *[60.24(g)]*

2. The State Plan shall include the specific emission limitations, preferably cross-referenced to the specific Emission Guideline requirements. *[60.24(a)]*

3. Test methods and procedures for determining compliance shall be specified. *[60.24(b)2]*

4. If the methods and procedures are not identical to those in Sections 60.34c, 60.755, and 60.756, the state must demonstrate equivalence or request EPA approval of acceptable alternatives per current EPA method review procedures. *[60.24(b)(2)]*

5. If emission standards are adopted by local agencies or other state agencies, they must also be included in the State Plan and if not identical to the Emission Guidelines, then the state must show that they are at least as protective as the emission guidelines except as specified in "1," above. *[60.24(a)]*

D. Process for Review of Design Plans

Subpart Cc requires site-specific design plans for the required gas collection and control systems. The State Plan must also include a process for state review and approval of design

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plans. These landfill State Plan requirements are unique to landfills because they are required by Subpart Cc, rather than Subpart B.

The design plan must be prepared by a professional engineer, must meet the design criteria in Section 60.752(b)(2)(ii) of Subpart WWW, and must be submitted to the state for approval. For further information about the design criteria and for examples of alternative designs, refer to "Municipal Solid Waste Landfills, Volume 1: Summary of the Requirements for the New Source Performance Standards and Emission Guidelines for Municipal Solid Waste Landfills" (EPA-453/R-96-004).

1. For approval, a State Plan shall include the installation of a collection and control system meeting the conditions provided in Section 60.752(b)(2)(ii) of Subpart Cc at each MSW landfill meeting the conditions of Section 60.33c(a). [*60.33c(b)*]

2. The State Plan shall include a process for state review and approval of the site-specific design plans for the gas collection and control system(s). [*60.33c(b)*] The description of the process in the State Plan could include information on review responsibilities, schedules, and notification procedures such as communication of reasons for disapproval.

E. <u>Compliance Schedules</u>

1. Compliance schedules must match the Cc and B specifications except as specified above in "1" under Emission Standards. *[Subpart Cc,60.36c]*

2. For compliance schedules for MSW landfills extending more than 12 months beyond the date required for submittal of the plan (December 12, 1996), the compliance schedule must include legally enforceable increments of progress towards compliance for that MSW landfill. Each increment of progress in Section 60.21(h) of Subpart B must have a compliance date and must be included as an enforceable date in the State Plan. The State Plan may include such additional increments of progress as may be necessary to permit close and effective supervision of progress towards final compliance. *[60.24(e)(1), & 60.21(h)]*

   The <u>minimum</u> increments of progress are as follows:

   (a) Submittal of Final Control Plan (Design Plan); *[60.21(h)(1)]* For landfills, the design must include the information specified in § 60.752(b)(2) of Subpart WWW.

   (b) Awarding of contracts for controls systems or process modifications or orders for purchase of components; *[60.21(h)(2)]*

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(c) Initiation of on-site construction or installation of the air pollution control device(s) or process changes; *[60.21(h)(3)]*

(d) Completion of on-site construction or installation of control equipment or process changes; *[60.21(h)(4)]*

(e) Final compliance. *[60.21(h)(5)]*

These increments of progress can be set as calendar dates or floating dates tied to the effective date of EPA's approval of the State plan for MSW landfills or the date of the first Annual Emission Rate Report that shows that NMOC emissions equal to or exceeding 50 Mg/yr. For example, the date for submitting a final control plan (design plan) could be set as 1 year after the date of the first Annual Emission Rate Report showing that the NMOC emission rate is 50 Mg/yr or greater. This timing is consistent with Subparts Cc and WWW.

3. The State Plan may include one set of increments with compliance dates applicable to all MSW landfills, or the State Plan may vary the compliance dates to address specific issues relevant to individual landfills. However, the enforceable increments of progress must be arranged chronologically and the compliance dates must be set to ensure full compliance with the applicable requirements *as expeditiously as practicable*. *[60.24(c)]* For example, a State Plan that requires an MSW landfill to "submit a final control plan (design plan) no later than 24 months after the effective date of a State emission standard" will be closely examined to determine whether the state is requiring the MSW landfill to comply as expeditiously as practicable.

F. Public Participation

Public participation, under the Clean Air Act, is an important right and responsibility of citizens in the state process of developing, adopting, and implementing the required Section 111(d) State Plans. Under 40 CFR Part 60, Subpart B, the minimum requirements for the state to conduct public hearings on the adoption of State Plans and any revisions thereof are as follows:

1. Reasonable notice of one or more public hearing(s) at least 30 days prior to the hearing(s). *[60.23(d)]*

2. One or more public hearing(s) on the State Plan (or revisions) conducted in location(s) within the state. *[60.23(c)(1)]*

3. Date, time and place of hearing(s) prominently advertised in each region affected. *[60.23(d)(1)]* "Region" is defined as "air quality control region". *[60.21(i)]*

4. Availability of draft State Plan for public inspection in at least one location in each region to which it will apply. *[60.23(d)(2)]*

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5. Notice of hearing provided to: (a) EPA Regional Administrator, (b) local affected agencies, and (c) other states affected. *[60.23(d)(3),(4),&(5)]*

6. Retention of hearing records (for example, list of commenters and their affiliation and summary of each presentation and comments submitted and the state's responses to those comments) for at least 2 years. *[60.23(e) and (f)]*

7. Certification that public participation was conducted in accordance with Subpart B and state procedures. *[60.23(f)]* Upon written application by the state agency, EPA may (expected only for limited special cases) approve different procedures provided that they ensure adequate public participation. *[60.23(g)]*

No hearing is required on a state or local emission standard in effect prior to March 12, 1996, the effective date of Subpart Cc, if it was adopted after a public hearing and is at least as stringent as the Emission Guidelines. *[60.23(c)(3)]*

Similarly, no public hearing is required for any change to an increment of progress unless the change is likely to cause the facility to be unable to comply with the final compliance date. *[60.23(c)(2)]*

G. Source Surveillance, Compliance Assurance & Enforcement

The State Plan must provide for monitoring the status of compliance. As a minimum, the State Plan shall include:

1. Provisions for legally enforceable procedures to:

   (a) require recordkeeping on nature and amount of emissions and reports to the state. *[60.25(b)(1)]*

   (b) require any additional information to judge compliance. *[60.25(b)(1)]*

2. Provisions for periodic inspection and testing, if necessary. *[60.25(b)(2)]*

3. Provisions for emission data and other compliance monitoring information to be correlated with applicable emission standards and be made available to the public. "Correlated" means showing the relationship between the measured or estimated amounts of emissions and the amounts of such emissions allowable. For example, the emissions should be in the same units and averaging times. This would include the annual emission rate reports, in Mg/yr, that must be submitted by uncontrolled landfills. The reported annual emission rate would be compared to

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the 50 Mg/yr threshold to determine whether controls must be installed.[1] *[60.25(a) and (c)]*

4. MSW landfill requirements for Testing, Monitoring, Recordkeeping, and Reporting that are identical to those specified in 60.34c, 60.35c *[Subpart Cc]*, and 60.755, 60.756, 60.757, 60.758. *[Subpart WWW, referred to by Subpart Cc]*

5. Specific identification of the provisions in 1 through 4 above. Copies of such provisions should be included unless they have been approved as portions of a preceding Section 111(d) State Plan or State Implementation Plan (SIP) and the state demonstrates that the provisions are applicable and the requirements of 60.26 (legal authorities) are met. *[60.25(d)]*

6. Commitment to submit reports on progress in plan enforcement to the EPA Regional Administrator on an annual basis and include it in the reports required by 51.321. *[60.25(e) and (f)]* Each progress report shall include: enforcement actions, achievement of increments of progress, identification of sources that have ceased operation, emission inventory information for sources that were not in operation at the time of plan development, updated emission inventory and compliance information, and copies of technical reports on all performance testing, including concurrent process data. *[60.25(f)(1) through 60.25(f)(6)]*

Note: Some states and regions have developed more specific or tailored reporting and recordkeeping procedures via Memoranda of Agreements, Program Specific Guidance for Section 105 Grants, and the Timely and Appropriateness Guidance that should also be followed. For example, some regions prefer that the state retain the performance test report until the region needs to review it as part of a compliance determination or other action.

---

[1]For landfills that require control, the emission standards are expressed in terms of design criteria and operational requirements for the gas collection system and a percent reduction for the control device, instead of emission rate limits. Therefore, the Subpart B requirement to "correlate" the annual emission inventory information (in Mg/yr, discussed in Section 3.4) with the MSW landfill emission standards is not helpful for controlled MSW landfills. Thus, the more appropriate correlation is to the NMOC threshold in Mg/yr. The performance testing, monitoring, and recordkeeping procedures in the Emission Guidelines are appropriate for determining compliance with the percent reduction limit and collection system requirements.

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Appendix O:

A Record Of Public Hearing(s) On The MCAQD Plan.

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United States
Environmental Protection
Agency

Office of Air Quality
Planning and Standards
Research Triangle Park, NC 27711

EPA-456R/98-009
November 1998

Air

Municipal Solid Waste Landfills, Volume 2:

Summary of the Requirements for Section 111(d) State Plans for Implementing the Municipal Solid Waste Landfills Emission Guidelines

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Municipal Solid Waste Landfills, Volume 2: Summary of the Requirements for Section 111(d) State Plans for Implementing the Municipal Solid Waste Landfill Emission Guidelines

EPA-456/R-98-009

Office of Air Quality Planning and Standards
U.S. Environmental Protection Agency
Research Triangle Park, North Carolina 27711

U.S. Environmental Protection Agency
Region 5, Library (PL-12J)
77 West Jackson Boulevard, 12th Floor
Chicago, IL 60604-3590

November 1998

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ABSTRACT

This guidance document explains the State plan development and approval process, and explains the regulations developed under the Clean Air Act (CAA) as they apply to municipal solid waste (MSW) landfills. The CAA requires States to adopt and submit a State plan to implement the Emission Guidelines developed under the CAA. This document discusses the regulations developed under Section 111(d) of the Clean Air Act, focusing on Subpart Cc, Emission Guidelines for existing MSW landfills; and Subpart B, Adoption and Submittal of State plans for designated facilities. In addition, the document outlines and explains the required content of State plans, outlines the timeline and responsibilities for developing and submitting State plans, and answers general questions about how to prepare State plans. The appendices include reference materials States may need when developing State plans. For example, copies of relevant regulations, policy memos, procedures for estimating emissions, and a list of MSW landfill rule contacts who can assist in developing the State plan are included. This volume is one of a series of documents designed to assist States, EPA regional offices, and MSW landfill owners and operators in implementing the New Source Performance Standards (NSPS) and Emission Guidelines. Full references to all related documents are provided in the Executive Summary.

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Municipal Solid Waste Landfills, Volume 2:
Summary of the Requirements for Section 111(d)
State Plans for Implementing the
Municipal Solid Waste Landfills
Emission Guidelines
EPA-456/R-98-009

Available at:

(1) U.S. Environmental Protection Agency
401 M Street, SW
Washington, DC 20460

Air and Radiation Docket and Information Center
Room M-1500 Waterside Mall, Ground Floor
Phone: 202-260-7548
Docket Number: A-88-09
Item number: II-B-54

(2) U.S. Environmental Protection Agency
Regional Office Libraries (Regions I-X)
(see Appendix C for Addresses)

(3) U.S. Environmental Protection Agency
EPA Technology Transfer Network Website (TTN Web)

Unified Air Toxics Website: Rule and Implementation Information for Standards of Performance for Municipal Solid Waste Landfills
http://www.epa.gov/ttn/uatw/landfill/landflpg.html

or

Office of Air Policy and Guidance (OAR P&G)
http://www.epa.gov/ttn/oarpg

The file is located under:
Actions Sorted by CAA Title
Title ~~III~~ I
Policy and Guidance Memos.

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LIST OF ACRONYMS AND ABBREVIATIONS

AFS	Aerometric Emissions Information Retrieval System Facility Subsystem
CAA	Clean Air Act (of 1990)
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
EPA	U.S. Environmental Protection Agency
FR	Federal Register
Mg	Megagram (2204 lb)
MSW	Municipal Solid Waste
MWC	Municipal Waste Combustor
NAAQS	National Ambient Air Quality Standards
NMOC	Non-methane organic compounds
NSPS	New Source Performance Standard
NSR	New Source Review
SIP	State Implementation Plan
TAR	Tribal Authority Rule
TTN Web	EPA Technology Transfer Network Website

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EXECUTIVE SUMMARY

This is the second of two guidance documents designed to assist States, EPA regional offices, and Municipal Solid Waste (MSW) landfill owners and operators in implementing the New Source Performance Standards (NSPS) and Emission Guidelines. The NSPS apply to new landfills, whereas the Emission Guidelines pertain to existing landfills. States must develop State plans as part of the implementation process for the Emission Guidelines for existing landfills in their State. Indian Tribes are not required to submit Tribal plans, but may submit Tribal plans to implement and enforce the Emission Guidelines in Indian country. The purpose of this document is to explain the State plan development and approval process. This volume, "Municipal Solid Waste Landfills, Volume 2: Summary of the Requirements for Section 111(d) State plans for Implementing the Municipal Solid Waste Landfill Emission Guidelines," EPA-456/R-96-005 (MSW Landfills, Volume 2), draws together the relevant information from the various Federal regulations that affect existing MSW landfills to give the State regulatory agencies the information they need to develop State plans. Background information is provided on the MSW landfills regulations that have been developed under Section 111 of the Clean Air Act (CAA). States must include specific information in their State plans and must comply with a specific schedule. The required content of State plans and the adoption and submittal schedule are outlined below and are discussed in detail in the body of this guidance document. The first guidance document, Volume 1, and related documents that will assist States in developing their plans are briefly discussed in the section of this Executive Summary entitled "Related Documents."

This document is a revision of the final draft published in October 1996, EPA-456/R-96-005. It has been revised to reflect the amendments to the NSPS and Emission Guidelines published on June 16, 1998 (63 FR 32743) and to update other information.

Background

Air pollution emissions from MSW landfills are regulated by various federal regulations promulgated to implement the CAA of 1990. This document addresses the MSW

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landfills regulations that have been developed under Section 111 of the CAA. Section 111 of the CAA addresses Standards of Performance for Stationary Sources.

Federal air pollution rules promulgated in the Code of Federal Regulations (CFR) that affect MSW landfills include: (1) Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills [Title 40 CFR Part 60, Subpart Cc]; (2) New Source Performance Standards for MSW Landfills [Title 40 CFR Part 60 Subpart WWW]; and (3) rules governing the Adoption and Submittal of State plans for Designated Facilities [Title 40 CFR Part 60, Subpart B]. This document focuses on the Emission Guidelines and the rules governing State plans. Appendices G and H of this document contain the full text of Section 111(d) and Subpart B, respectively. Appendix I contains the full text of Subparts Cc and WWW, including amendments published on June 16, 1998 (63 FR 32743).

The Subpart Cc Emission Guidelines apply to existing MSW landfills. States with existing MSW landfills must implement the Emission Guidelines. As part of the implementation effort, States must develop a State plan and submit it for approval to the U.S. Environmental Protection Agency (EPA). Together, Subpart B and Subpart Cc specify the State plan content and the general rules for adopting and submitting State plans.

State plan requirements for MSW landfills are similar to those for municipal waste combustor (MWC) units because they are both regulated under Section 111(d) of the CAA. However, there are differences because MWC units are regulated under Section 129 of the CAA in addition to Section 111(d). Section 129 addresses Solid Waste Combustion and does not apply to MSW landfills; therefore, State plans for MSW landfills will differ slightly from State plans for MWC units and other section 129 State plans.

State Plan Content

On March 12, 1996 the EPA adopted (1) Emission Guidelines for existing MSW landfills and (2) New Source Performance Standards for new MSW landfills. On June 16, 1998, EPA published a notice to amend, correct errors, and clarify regulatory text. These amendments

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did not affect the due date or the required contents of State plans for existing landfills. The CAA requires that State regulatory agencies implement the Emission Guidelines according to a State plan developed under Section 111(d) of the CAA, and that they submit the State plan to EPA within nine months of EPA's adoption of the Emission Guidelines. The CAA and the Tribal Authority Rule (TAR) allow, but do not require, Indian Tribes to develop Tribal plans in the same manner as States if the Indian Tribe meets criteria outlined in the TAR.

State plans must contain specific information and legal mechanisms necessary to implement the Emission Guidelines. The minimum requirements are listed below and are discussed in detail in Section 3 and Appendix J.

- Identification of enforceable State mechanisms selected by the State for implementing the Emission Guidelines;
- A demonstration of the State's legal authority to carry out the Section 111(d) State plan as submitted;
- An inventory of existing MSW landfills in the State affected by the Emission Guidelines. An existing landfill may be active (currently accepting waste or having additional capacity available to accept waste) or closed (no longer accepting waste nor having available capacity for future waste deposition).
- An inventory of emissions from existing MSW landfills in the State that are affected by the Emission Guidelines;
- Emission standards for existing MSW landfills that are no less stringent than those in the Emission Guidelines;[1]
- A State process, as stipulated in § 60.33c(b) of Subpart Cc, for State review and approval of site-specific gas collection and control system design plans;

[1]On a case-by-case basis, the State may provide for a less stringent standard or a longer compliance schedule if the State demonstrates to EPA that the criteria in § 60.24(f) of Subpart B are met, and the EPA approves the standard or schedule. See Section 3.11 for additional information.

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- Compliance schedules, extending no later than 30 months after the date the annual NMOC emission rate reaches or exceeds 50 megagrams (Mg) per year;

- Testing, monitoring, recordkeeping, and reporting requirements;

- A record of public hearing(s) on the State plan; and

- Provision for annual State progress reports to EPA on implementation of the State plan.

Schedule

States must adopt and submit a State plan to EPA within nine months (December 12, 1996) after promulgation of the Emission Guidelines. The State must make available to the public the State plan implementing the Emission Guidelines and provide opportunity for discussion of the State plan in a public hearing prior to submittal to EPA. EPA then has four months (April 12, 1997) to approve or disapprove the State plan. Plan approval or disapproval will be published in the Federal Register (FR). If a plan is disapproved, EPA will State the reasons for disapproval in the FR. If a State does not submit an approvable State plan, EPA will adopt and implement a Federal Plan.

Related Documents

A number of related documents and resources are available that may prove useful to States, EPA regional offices, and landfill owners and operators. These documents are available as indicated below, however, these and other landfill-related documents are available on the EPA Technology Transfer Network Website (TTN web) at: http//www.epa.gov/ttn/uatw/ landfill/landflpg.html.

- "Municipal Solid Waste Landfills, Volume 1: Summary of the Requirements, for the New Source Performance Standards and Emission Guidelines for Municipal Solid Waste Landfills," EPA-453/R-96-004 (MSW Landfills, Volume 1 is posted on the TTN web and explains landfills NSPS and Emission Guideline control, monitoring, recordkeeping

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and reporting requirements, and assists States in determining compliance. The document is also available in the docket (see address on page iv).

- "Municipal Solid Waste Landfill New Source Performance Standards and Emission Guidelines—Issues and Answers," is posted on the TTN Web and contains a periodically updated summary of answers to questions EPA has recently been asked about the MSW Landfills NSPS and Emission Guidelines.

- "Air Emissions from Municipal Solid Waste Landfills — Background Information for Final Standards and Guidelines," EPA-453/R-94-021 contains summaries of public comments received on the landfills NSPS and Emission Guidelines, EPA's responses, and the estimated impacts of these regulations. This document may be obtained from the TTN Web, the U.S. EPA Library (MD-33), Research Triangle Park, NC 27711, telephone (919) 541-2777, or from the docket (see addresses on page iv).

- EPA's Landfill Methane Outreach Program (LMOP). To cost-effectively reduce methane emissions from landfills, the EPA encourages the development of environmentally and economically beneficial landfill gas-to-energy projects through the LMOP. The LMOP works with States, utilities, and the landfill gas-to-energy industry to facilitate the development of successful projects. One of the key ways the LMOP does this is by publishing technical information on how to develop a gas-to-energy project including current technology, cost, and financing options, and regulatory considerations. Appendix C includes information on how to contact LMOP.

- "Landfill Gas Emissions Model" Version 2.01 and User's Manual, September 1998. The computer model can be used to calculate annual emission rates as to determine applicability of the NSPS or Emission Guidelines or for State emission inventory or other purposes. The user's guide and diskettes can be obtained from the National Technical Information Services, as described in Appendix D, or accessed on the TTN Web at http://www.epa.gov/ttn/catc/products.html#software.

Appendix C includes information on how to contact landfill resources, including EPA regional and State contacts and EPA contacts for LMOP, the landfill model, implementation model, implementation issues, and other information. Documents posted on the TTN Web may be accessed by computer as described on page iv. The user can download an electronic copy from the TTN Web. Printed copies of the documents are available as discussed above.

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1.0 INTRODUCTION

The purpose of this document is to assist the State air regulatory agencies in developing State plans that implement regulations controlling air pollutant emissions from municipal solid waste (MSW) landfills. The United States Environmental Protection Agency (EPA) has developed regulations to control air pollutant emissions from MSW landfills under the Clean Air Act of 1990. Emissions from new MSW landfills are addressed by standards of performance for new sources (New Source Performance Standards [NSPS]), and emissions from existing MSW landfills are addressed by standards of performance for existing sources (Emission Guidelines). EPA promulgated the NSPS (Subpart WWW) and Emission Guidelines (Subpart Cc) for MSW landfills on March 12, 1996, and published amendments on June 16, 1998. States are required to develop State plans to implement the Emission Guidelines for existing sources and submit the State plans to EPA by December 12, 1996. Indian Tribes may submit, but are not required to submit, Tribal plans to implement and enforce the emission guidelines in Indian country. This document provides State agencies and Indian Tribes information on the required content of these State plans. In some cases, local agencies, or protectorates of the of the United States may submit plans for landfills in their jurisdictions. The same guidance applies. The word "State plan" used throughout this document includes tribal plans developed by Indian Tribes and plans developed by agencies or protectorates.

Another document has been prepared to assist States, Tribes, EPA regional offices, and MSW landfill owners and operators in implementing the NSPS and Emission Guidelines. A September 1998 draft document entitled, "Municipal Solid Waste Landfills, Volume 1: Summary of the Requirements for the New Source Performance Standards and Emission Guidelines for Municipal Solid Waste Landfills," EPA-453/R-96-004 (MSW Landfills, Volume 1) is posted on the EPA Technology Transfer Network Website (TTN Web). The September 1998 version of MSW Landfills Volume 1 replaces and updates a March 1996 draft to reflect the rule amendments published on June 16, 1998. Volume 1 provides a plain English summary of the requirements of the NSPS and Emission Guidelines. It contains example forms that may be used for reporting. It also contains tools, such as checklists, that may be used by regulatory agencies to determine landfill compliance with the rules. A question-and-answer

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document, "Municipal Solid Waste Landfill New Source Performance Standards and Emission Guidelines—Questions and Answers" is also posted on the TTN Web, and contains answers to questions EPA has been asked about the MSW Landfills NSPS and Emission Guidelines. The document may be updated as additional questions are received. The TTN Web address for these documents is http://www.epa.gov/ttn/uatw/landfill/landflpg.html.

1.1 Organization of this Document

This document brings together the information on the relevant parts of the various regulations that affect existing MSW landfills, i.e., those that were constructed, modified or reconstructed before May 30, 1991 and have not been modified or reconstructed since May 30, 1991 and that have accepted waste since November 8, 1987 or have additional capacity available for future waste deposition. These regulations were developed under Section 111(d) of the Clean Air Act. The regulations are codified in Title 40 of the Code of Federal Regulations (CFR). The CFR rules include (1) Adoption and Submittal of State plans for designated facilities, Subpart B, and (2) the Emission Guidelines for existing MSW landfills, Subpart Cc.

This document provides information on the relevant requirements of the Clean Air Act and the Emission Guidelines, and the required contents of State plans, including an overview of Clean Air Act, regulatory, and State plan requirements (Section 1); information on the timeline and responsibilities for developing and submitting State plans (Section 2); the elements of a State plan (Section 3); and answers to some general questions about preparing State plans (Section 4).

The appendices of this document (Table 1-1) include reference materials that States may find useful when developing the State plans. The appendices include copies of Section 111(d), relevant regulations, policy memos, procedures for estimating MSW landfill emissions, and contact lists.

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Table 1-1. Appendices to this Document

Appendix	Title
A	Emission Guideline Fact Sheet (40 CFR 60 Subpart Cc)
B	MSW Landfills Implementation Timeline
C	State, Regional, and Other Contacts
D	Emission Estimation Procedures for State Plan Emissions Inventory
E	New Source Review
F	Title V Operating Permits White Paper Number 2
G	Clean Air Act Section 111(d)
H	40 CFR 60 Subpart B
I	40 CFR 60 Subparts Cc and WWW, including the June 16, 1998 Amendments
J	Key Elements of an Acceptable Section 111(d) State Plan
K	Memo: Emission Inventory for MSWLF State Plans

1.2 Clean Air Act Requirements

Section 111(d) (see Appendix G) has been included in the Clean Air Act since the 1970's and requires EPA to establish procedures for submitting State plans for implementing Emission Guidelines. The landfill standard is a health-based Emission Guideline. Procedures and requirements for health-based Emission Guidelines are different from welfare-based. Because the landfills Emission Guidelines are health-based, this document focuses on the procedures and requirements for health-based Emission Guidelines. The first health-based Emission Guideline adopted was for sulfuric acid plants in 1977. Other health- and welfare-based Emission Guidelines have been adopted since that time. The State plans implement and provide for enforcing the Emission Guidelines. Detailed procedures for submitting and approving State plans were promulgated by EPA in 1975 as 40 CFR Part 60, Subpart B and amended in 1979, 1989, and 1995 (see Appendix H). The MSW landfill Emission Guidelines (Subpart Cc) were promulgated on March 12, 1996, under the authority of Section 111(d) of the Act, and were amended on June 16, 1998.

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The Subpart Cc Emission Guidelines for MSW landfills differ from those adopted for MWC units because MSW landfills are regulated under Section 111(d) of the CAA, whereas MWC units are regulated under Sections 111(d) and 129 of the CAA. Section 129 does not apply to MSW landfills. Therefore, the State plan requirements for landfills are slightly different than those for MWC units or other Section 129 State plans. In particular, Subpart B requires that State plans for MSW landfills be submitted to EPA within nine months after promulgation of Emission Guidelines; whereas the Section 129 requirements that apply to MWC units have a different schedule.

1.3 Indian Tribes and State Plans

Indian Tribes are not required to submit State or Tribal plans. However, Indian Tribes have the authority under the CAA to develop Tribal plans in the same manner States develop State plans. On February 12, 1998, EPA promulgated regulations that outline provisions of the CAA for which EPA is authorized to treat Indian Tribes in the same manner as States (see 63 FR 7254, Indian Tribes: Air Quality Planning and Management). If the Indian Tribe meets certain criteria, it may submit for EPA approval a Tribal plan to implement and enforce the Emission Guidelines in Indian country. If an Indian Tribe chooses to prepare a Tribal plan, the Indian Tribe would follow this guidance the same way as a State.

1.4 MSW Landfills Covered by State Plans

State plans must address existing landfills that are subject to the Emission Guidelines for MSW landfills. These Emission Guidelines outlined in Table 1-2 were promulgated on March 12, 1996 (61 FR 9905), and codified in 40 CFR Part 60, Subpart Cc. Amendments to clarify the Emission Guidelines were published in the Federal Register on June 16, 1998 (63 FR 32743). The amended rule will be published in Subpart Cc when the next version of the CFR is published.

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Table 1-2. Outline of the Emission Guidelines for MSW Landfills (40 CFR Part 60, Subpart Cc)

Section	Contents
60.30c	Scope
60.31c	Definitions
60.32c	Designated facilities
60.33c	Emission guidelines for municipal solid waste landfill emissions
60.34c	Test methods and procedures
60.35c	Reporting and recordkeeping guidelines
60.36c	Compliance times

The Emission Guidelines apply to existing MSW landfills, i.e., those that commenced construction, modification, or reconstruction before May 30, 1991 and that have accepted waste at any time since November 8, 1987 or have additional capacity for future waste deposition. New landfills (those that commenced construction, modification, or reconstruction on or after May 30, 1991) need not be addressed by State plans. Modification means an increase in the permitted volume design capacity by either horizontal or vertical expansion. New, modified, and reconstructed landfills are subject to the federal NSPS (40 CFR Part 60 Subpart WWW), which has similar requirements to the Emission Guidelines.

The pollutant regulated by Subpart Cc is MSW landfill emissions, which contain a mixture of VOC, other organic compounds, methane, and toxic pollutants. To determine whether control is required, non-methane organic compounds (NMOC) are measured as a surrogate for MSW landfill emissions. The NSPS and Emission Guidelines are summarized in a fact sheet included in this document (see Appendix A). The full text of the Emission Guidelines (Subpart Cc) including the direct final amendments is also provided (see Appendix I).

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1.5 Requirements for State Plans

States are required to develop Section 111(d) State plans to implement the MSW landfill Emission Guidelines and to submit plans to EPA for approval. The first step for meeting the State plan requirement is to identify existing MSW landfills that are subject to the Emission Guidelines that are located in the State. If there are no existing MSW landfills in the State, then the State need only submit a letter of certification to that effect, which is called a negative declaration, and no plan is submitted. States may also submit negative declarations if they have no existing MSW landfills with design capacities greater than or equal to 2.5 million megagrams (Mg) and 2.5 million cubic meters (m^3). Such negative declarations must include the design capacities of the landfills. (The Emission Guidelines do not require control for landfills with design capacities less than 2.5 million Mg or 2.5 million m^3.) Existing MSW landfills that are closed must be included in the MSW landfill inventory if they have accepted waste at any time since November 8, 1987, or have additional capacity for future waste deposition.

States that have existing MSW landfills and have not submitted a negative declaration are required to submit a Section 111(d) State plan. As a minimum, the State plan must include the following elements which are discussed in detail in Section 3.0.

- Identification of enforceable State mechanisms selected by the State for implementing the Emission Guidelines;
- A demonstration of the State's legal authority to carry out the Section 111(d) State plan as submitted;
- An inventory of existing MSW landfills in the State affected by the Emission Guidelines;
- An inventory of emissions from existing MSW landfills in the State;
- Emission standards for existing MSW landfills;
- A process for State review and approval of site-specific gas collection and control system design plans;
- Compliance schedules;

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- Testing, monitoring, recordkeeping, and reporting requirements;
- A record of public hearing(s) on the State plan; and
- Provision for annual progress reports to EPA.

The State plans are due to EPA by December 12, 1996. Table 1-3 summarizes the regulations for adopting and submitting State plans, as codified in Subpart B of 40 CFR Part 60, and specifies the required elements of the plans.

1.6 Relationship Between the Section 111(d) State Plan and SIP

The State plans for implementing the MSW landfill Emission Guidelines are different from State Implementation Plans (SIP) required by Sections 110 or 172 of the Clean Air Act. The State plan and the SIP are both programs for State implementation of federal requirements. For both, the administrative procedures, particularly the public hearing process, are the same. Both programs are designed to achieve emission reductions at sources by identifying the pollutant to be controlled, establishing the emission limits for the source, and establishing procedures to ensure that emission limits are met.

However, the States and EPA fulfill different responsibilities under the two programs. The goal of Section 111(d) State plans is to control the emissions of designated pollutants[2] by establishing standards of performance for existing sources. Section 111(d) Emission Guidelines (including emission standards or performance levels) are based on demonstrated technology and are established by EPA on a national level, and the States are responsible for developing and implementing a program to achieve compliance with these standards. The goal of the SIPs, on the other hand, is to attain and maintain National Ambient Air Quality Standards (NAAQS) or ambient concentrations for certain criteria pollutants (lead, SO_2, PM_{10}, NO_2, CO, and ozone) in a given area. Hence, in the SIP program, the State

[2] The MSW landfills Section 111(d) Plans apply to MSW landfill emissions, measured as NMOC.

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Table 1-3. Regulations for Adopting and Submitting State Plans (40 CFR 60 Subpart B)

Section Number and Title	General Contents
60.20 Applicability	Subpart B applies when final guidelines (Subpart Cc) are promulgated.
60.21 Definitions	Defines key terms.
60.22 Publication of guideline documents, Emission Guidelines, and final compliance times	Describes contents of Emission Guidelines to be developed by EPA.
60.23 Adoption and submittal of State plans, public hearings	Schedules and procedures for States to follow in developing and submitting State plans. Requirements for public hearings on State plans.
60.24 Emission standards[a] and compliance schedules	State plans must include emission standards and compliance schedules. State plans may be no less stringent than the guidelines, except as provided in § 60.24(f).
60.25 Emission inventories, source surveillance, reports	Plans must include an inventory of existing MSW landfills and their emissions and provisions for monitoring compliance. States must submit progress reports to EPA.
60.26 Legal authority	Plans must demonstrate that the State has legal authority to carry out the plan as submitted.
60.27 Actions by the Administrator	Procedures for EPA review and approval or disapproval of plans. Federal Plans will be developed if States have not submitted timely and approvable plans.
60.28 Plan revisions[b] by the State	Procedures for revision of plans.
60.29 Plan revisions[b] by the Administrator	Procedures for revision of plans.

[a] Note that "emission standards" can include any State enforceable mechanisms including, but not limited to, State rules (see Section 3.1 in this document).

[b] Plan revisions refer to changes to a State Plan that is already in place.

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establishes emission standards or standards based on the sources' contributions to local air quality, meteorology, and other local factors. The emission control requirements for a regulated source category under a SIP may vary from plant to plant based on local factors.

The States are responsible for implementing both Section 111(d) State plans and SIP programs, and both programs complement each other. Where the SIP requirements are adequate to meet the Section 111(d) standard, the State may elect to submit a Section 111(d) State plan that relies on the requirements in the SIP, Section 110, to meet the Section 111(d) emission standard. In addition, where the Section 111(d) requirements protect the NAAQS, the State may elect to rely on these requirements in the control strategy in the SIP.

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2.0 SCHEDULE AND RESPONSIBILITIES

To develop a State plan to implement and enforce the Emission Guidelines, the States, EPA, and landfill owners and operators have specific responsibilities in developing, reviewing, and complying with State plans, as discussed below. Appendix B also discusses the timeline for MSW landfills to comply with the Emission Guidelines.

2.1 State Plan Schedule

States must submit a plan to implement and enforce the Emission Guidelines within nine months after promulgation of the Emission Guidelines. According to 40 CFR § 60.23(a), States are required by EPA to adopt and submit to the Administrator a plan implementing requirements of the Emission Guidelines. Within the nine months, or before December 12, 1996, States must develop a State plan, hold public hearings, and submit the plan to the Administrator. Figure 2-1 is a flow chart showing the approval process. Table 2-1 is a suggested schedule for developing State plans. The table shows more detail on the steps States need to take to develop State plans.

After the State plan is submitted, EPA is required to approve or disapprove the State plan within four months (approximately April 12, 1997). It is possible for the Administrator to approve a portion of the plan and disapprove another portion. EPA's decision to approve or disapprove each State plan will be published in the Federal Register (FR). Final decisions will be codified in 40 CFR Part 62, "Approval and Promulgation of State plans for Designated Facilities and Pollutants." If a plan is not approved, the basis for disapproval will be discussed in the FR notice. For plans that are disapproved, the State should submit a corrected plan that addresses these concerns. If a State does not submit an approvable plan, EPA will promulgate a Federal Plan for the State. Under certain circumstances, a State may request an extension of the period to submit a plan or corrected plan (see Section 3.11.1).

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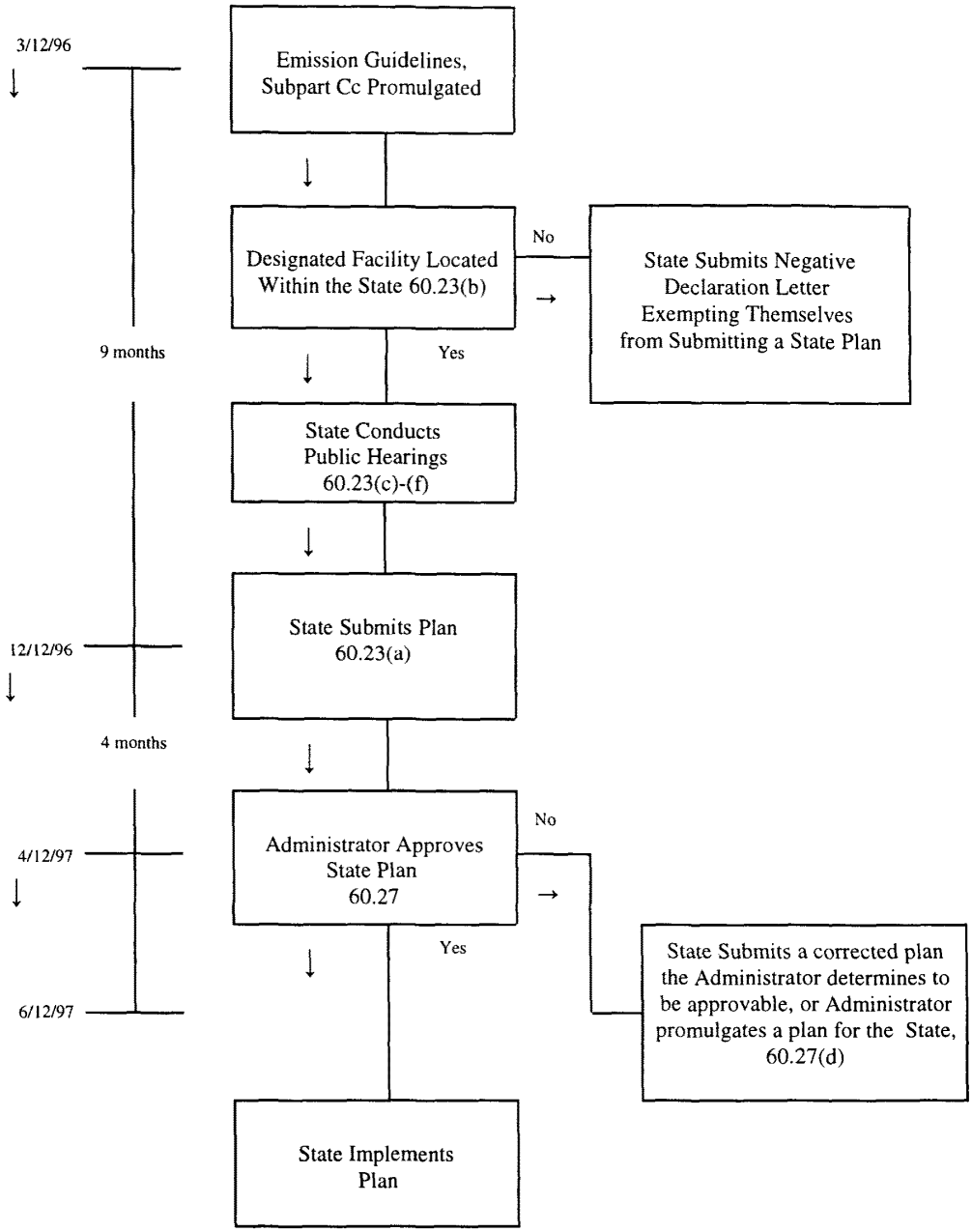

Figure 2-1. State Plan Approval Process and Schedule

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Table 2-1. Suggested Schedule for Section 111(d) State Plans

Action	Date
EPA promulgates Emission Guidelines	March 12, 1996
EPA posts draft Guidance Document Volume 1 on the TTN Web	March 1996
State decides what State authority to use	April 1996
State starts rulemaking or other procedure needed to ensure State authority	May 1996
State starts drafting State plan	August 1996
State posts notice of public hearings	September 1996 (30 days before hearing)
EPA issues guidance on Section 111(d) State plans	October 1996
State completes rulemaking or other procedure needed to ensure State authority	October 1996
State completes public hearing on State plan	October 1996
State submits State plan to EPA (Regional Office) unless an extension is received	December 12, 1996
State responds to any clarifications requested by EPA	During the 4 month period following December 12, 1996
EPA approves/disapproves the State plan	April 12, 1997
EPA promulgates Federal Plan if State has not submitted an approvable State plan	1999[a]

[a]A Federal Plan is expected to be proposed in late 1998 and promulgated in 1999.

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State plans may need to be modified in response to clarifying amendments to the Emission Guidelines. A direct-final notice to amend the guidelines was published in the Federal Register on June 16, 1998. Under 40 CFR § 60.23(a)(2), States have 9 months to adopt and submit to EPA plan revisions consistent with the revised Emission Guidelines. EPA would then review plan revisions and approve or disapprove them within 4 months. Because the amendments were primarily corrections and clarifications, any changes to State plans are expected to be minor.

2.2 Responsibilities

EPA, the States, and owners and operators of MSW landfills are responsible for implementing the Emission Guidelines. The primary responsibilities are outlined below.

2.2.1 EPA Responsibilities

Assisting State, Local, and Tribal Programs and MSW Landfill Owners and Operators. EPA assists State, local, and tribal agencies in developing approvable Section 111(d) State plans. EPA provides information, answers questions, and interprets federal requirements for the State and for MSW landfill owners and operators. EPA conducts outreach and compliance assistance programs. EPA identifies contact persons to answer States' questions, clarify approval criteria, and address specific implementation issues as necessary. States' questions should be directed to the appropriate EPA contact to ensure efficient and consistent responses. (See Appendix C for a list of State, regional, and other contacts.)

Review of State Plans. EPA is required to approve or disapprove the State plan within four months of the submittal due date (December 12, 1996). States must develop their Section 111(d) State plans according to the criteria in this document and 40 CFR Part 60, Subpart B. EPA will inform the State if the EPA has questions about the State plan before making a decision on the approval or disapproval of the State plan.

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Federal Plan. In the event approvable State plans (or local or tribal agency plans) are not submitted, EPA will develop and implement a Federal Plan for those landfills not covered by State plans or Tribal plans. The Federal Plan is expected to be a gap-filling action. When a State or Tribal plan is submitted and approved after the Federal Plan is in effect, the Federal Plan will no longer apply to MSW landfills covered by the State or Tribal plan after the State or Tribal plan becomes effective.

Related Programs. EPA reviews and comments on State development of Title V operating permits. Title V permits are not a required component of State plan submittal, nor are they required for EPA approval of the State plan.

2.2.2 State Responsibilities

Developing a State Plan. The State develops and submits a State plan that meets the criteria presented in Section 111(d), the Emissions Guidelines, and this document. This document outlines how States can meet this responsibility. In some cases, local agencies, Indian Tribes, or protectorates, rather than States, may develop plans for landfills in their jurisdictions. The same responsibilities apply.

Establishing Compliance Schedules. The State plan must develop emission limits and compliance schedules for all existing MSW landfills in the State. States should meet with MSW landfill owners and operators to develop compliance schedules to ensure a workable Section 111(d) State plan. All MSW landfills addressed by the State plan that have a design capacity equal to or greater than 2.5 million Mg and 2.5 million m^3 must install emission controls within 30 months after the landfill NMOC emission rate report shows NMOC emissions reach or exceed 50 Mg/yr. States may require compliance sooner, but not later, than specified in the Emission Guidelines, except in unusual case-by-case situations (see Section 3.11).

Submitting Progress Reports. States must report annually to the EPA on the progress of implementing the plan, including the status of meeting increments of progress and achieving final compliance. The States must also include in an annual report (as specified in

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Section 3.10) compliance status, enforcement actions, and updates on MSW landfill information and emission data.

Related Programs. Once EPA approves a State's Section 111(d) plan and it is effective, all applicable requirements from the plan and all the terms and conditions needed to assure compliance with the applicable requirements must be incorporated into Title V permits for those MSW landfills that are subject to Title V and the Emission Guidelines. See White Paper Number 2 in Appendix F for EPA guidance on improving the implementation of Title V operating permits programs.

Some MSW landfills are on the Superfund national priorities list. The Emission Guidelines apply to existing MSW landfills, including Superfund sites that meet these criteria. State plans should include such landfills. In addition to being subject to the requirements of the Emission Guidelines, these landfills may need to undergo remedial actions under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). For consistency, the requirements of the Emission Guidelines should be considered when determining case-by-case CERCLA remedial actions at Superfund sites. This is discussed further in the preamble to the promulgated NSPS and guidelines (61 FR 9909, March 12, 1996).

2.2.3 Landfill Owners and Operators Responsibilities

Developing Compliance Schedules and Installing Controls. MSW landfill owners and operators must work with the State to develop a compliance plan and control system schedule for the State plan that are both workable and meet requirements established by the State to implement the Emission Guidelines. The schedule for achieving compliance generally must be as stringent as the Emission Guidelines, however, on a case-by-case basis, the flexibility of the Emission Guidelines allows some variations from the schedules specified in § 60.33c of Subpart Cc and § 60.757 of Subpart WWW (see section 3.11 for additional information). Since landfill owners and operators need to comply with their State's requirements, they should consult with their State for schedules specific to their landfills. An example schedule of submittals and

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compliance times is described below for landfill owners and operators whose States adopt the provisions of Subparts Cc and WWW.

Example submittals include a Design Capacity Report, an Annual Emission Rate Report, and a Collection and Control System Design Plan. The owner or operator would submit a Design Capacity Report within 90 days after the effective date of EPA's approval of the State plan. If the design capacity is greater than or equal to 2.5 million Mg and 2.5 million m^3, the first Emission Rate Report would be submitted at the same time. The MSW landfill owner or operator would then submit a collection and control system design plan prepared by a professional engineer within 1 year after the date of the first Emission Rate Report that shows that the landfill's NMOC emission rate equals or exceeds 50 Mg/yr. Within 30 months after a landfill's NMOC emission rate report shows NMOC emissions to be equal to or greater than 50 Mg/yr, MSW landfill owners and operators would install and start up a gas collection and control system at a landfill. The landfill owner or operator would conduct an initial performance test on the control system to document compliance within 180 days after control system startup.

A brief discussion and flow chart timeline describing the responsibilities of landfill owners or operators is provided in Appendix B. The details regarding the owner or operator's responsibilities and the schedule for installing controls are discussed in Section 2 of MSW Landfills, Volume 1.

Meeting Additional Emission Guideline Requirements. Owners and operators are responsible for meeting other Emission Guidelines requirements, including an initial performance test and report to demonstrate compliance. They will also report ongoing monitoring results and keep required records to demonstrate compliance.

Related Programs. Owners and operators must apply for a Title V operating permit within a year of becoming subject to a Title V program. The authority for requiring Title V permits for existing MSW landfills is found in Section 502(a) of the CAA and is codified in 40 CFR Parts 70 and 71. Section 502(a) specifies that major sources and sources (including

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area sources) subject to standards or regulations under Sections 111 or 112 of the CAA (such as the Emission Guidelines and NSPS) are required to obtain Title V operating permits.

MSW landfills that are subject to a Title V permitting program under parts 70 or 71 are required to submit Title V permit application within 12 months after first becoming subject to Title V. If more than one requirement causes a landfill to become subject to Title V permitting, the 12-month time frame for submitting a Title V application will be triggered by the requirement that first causes the landfill to be subject to Title V. MSW landfills may, for example, be subject to Title V permitting as a result of being a major source under one or more of three major source definitions in Title V: (1) Section 112, (2) Section 302, or (3) Part D of Title I of the CAA. MSW landfills could also be subject to Title V permitting as a result of being subject to the Emission Guidelines.

The Emission Guidelines specify that landfills with design capacities greater than or equal to 2.5 million Mg and 2.5 million m^3 are subject to Title V permitting requirements. The guidelines also state that landfills smaller than 2.5 million Mg or 2.5 million m^3 are not subject to Title V unless they are a major source or are subject for some other reason (e.g., subject to another section 111 or 112 regulation). An existing MSW landfill with a design capacity equal to or greater than 2.5 million Mg and 2.5 million m^3 which is not already subject to Title V, becomes subject to Title V permitting 90 days after the effective date of EPA's approval of the relevant State plan. (This allows time for submission of the design capacity report to determine if the landfill meets or exceeds the design capacity cutoff.) Permit applications would generally be due within 1 year after this date, but States can establish earlier schedules, prior to the 12-month deadline, for the submittal of permit applications. The establishment of those earlier deadlines is consistent with Section 503(c) of the CAA. Owners and operators should contact the respective permitting authorities to determine when permit applications are due for their MSW landfills. White Paper Number 2 (see Appendix F) provides guidance on improving implementation of Title V operating permits programs.

Construction or modification of a MSW landfill may trigger NSR. The NSR program requires the preconstruction review of major new sources and major modifications. The

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review includes a control technology review and an analysis of the air quality impacts of the new or modified source. On a case-by-case basis, some sources with Pollution Control Projects (PCP) may be excluded from NSR. Landfills that apply controls to comply with the Emission Guidelines may contact their State to determine whether they quality for the PCP exclusion. NSR and the PCP exclusion are discussed in more detail in Appendix E.

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3.0 REQUIRED ELEMENTS OF AN ACCEPTABLE STATE PLAN

This document and Appendix J contain summaries of existing information on the required elements of a State plan. States may find this summary helpful in preparing Section 111(d) State plans, and EPA will use it in reviewing the plans. A Section 111(d) State plan for MSW landfills has ten essential elements:

1. Identification of enforceable State mechanisms selected by the State for implementing the Emission Guidelines,

2. A demonstration of the State's legal authority to carry out the Section 111(d) State plan as submitted,

3. An inventory of existing MSW landfills in the State affected by the Emission Guidelines. An existing landfill may be active (currently accepting waste or having additional capacity available for waste deposition) or closed (no longer accepting waste nor having available capacity for future waste deposition),

4. An inventory of emissions from existing MSW landfills in the State,

5. Emission standards for existing MSW landfills that are "no less stringent" than those in the Emission Guidelines[3],

6. A State process, as specified in § 60.33c(b) of Subpart Cc, for State review and approval of site-specific gas collection and control system design plans.

7. Compliance schedules extending no later than 30 months after the date the annual NMOC emission rate reaches or exceeds 50 Mg/yr[5],

8. Testing, monitoring, recordkeeping, and reporting requirements,

9. A record of public hearing(s) on the State plan, and

10. Provision for annual State progress reports to EPA on implementation of the State plan.

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[3]On a case-by-case basis, the State may provide for a less stringent standard or a longer compliance schedule if the State demonstrates to EPA that the criteria in § 60.24(f) of Subpart B are met, and the EPA approves the standard or schedule. See Section 3.11 for additional information.

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Table 3-1 summarizes these elements of the State plan for MSW landfills, provides citations from Subparts B and Cc, and identifies the sections of this chapter that discuss each element.

Some components of a Section 111(d) State plan may duplicate existing State requirements and therefore will not add additional requirements. For example, most States require public notice for rulemaking consistent with 40 CFR Part 60, Subpart B. Similarly, Section 112 and Title V of the CAA require various demonstrations of legal authority. If earlier demonstrations of legal authority by the State meet the requirements of 40 CFR Part 60, Subpart B, the State will simply need to include copies of such demonstrations in the State plan submittal. Appendix J, Key Elements of an Acceptable Section 111(d) State plan, provides a detailed list of requirements for demonstrating legal authority if this initial authority has not been previously demonstrated.

3.1 Criteria for an Adequate Enforceable Mechanism

Many States that have MSW landfills covered by the guidelines are developing Section 111(d) State plans that will use State rules as the legal instrument to enforce the Emission Guidelines. However, some States may use alternative mechanisms to implement the Emission Guidelines. An essential element of a Section 111(d) State plan requires the plan to include emission standards, which 40 CFR Part 60, Subpart B § 60.20(f) defines as "a legally enforceable regulation setting forth an allowable rate of emissions into the atmosphere, or prescribing equipment specifications for control of air pollution emissions." For Section 111(d) State plans, EPA interprets the term "regulation" in Section 60.22(f) to include, in addition to a uniform State requirement or State rule, other mechanisms that are legally enforceable under State law. For example, depending on the applicable State law, enforceable mechanisms that might be used as the vehicle for implementing the MSW landfills Emission Guidelines may include a regulatory or administrative order, a compliance order, or a State operating permit. A State may select other enforceable mechanisms provided that the State demonstrates that it has the underlying authority and demonstrates that the selected mechanism is State enforceable.

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Table 3-1. Summary of Requirements for Section 111(d) State Plans[a]

Required Item	Reference in 40 CFR Part 60, Subpart B or Cc	Section of this Document
Identify enforceable mechanisms selected by the State to implement the guidelines	60.24(a) of Subpart B	3.1
Show that State has legal authority to carry out plan	60.26(a) of Subpart B	3.2
An inventory of MSW landfills and an emissions inventory	60.25(a) and 60.25(c) of Subpart B	3.3 and 3.4
Allowable emission rates	60.24(b)(1), 60.24(c), and 60.24(f) of Subpart B and 60.33c of Subpart Cc	3.5
Process for State review and approval of site-specific gas collection and control system design plans	60.33c(b) of Subpart Cc	3.6
Compliance schedules and legally enforceable increments of progress for MSW landfills to achieve compliance	60.24(a) and 60.24(e)(1) of Subpart B and 60.36(c) of Subpart Cc	3.7
Test methods and procedures used for determining compliance with the emissions standards	60.24(b)(2) of Subpart B and 60.34c of Subpart Cc	3.8
Provisions for monitoring a MSW landfill's compliance status, including: 1. Legally enforceable procedures for requiring the maintenance of records and periodic reporting to the State for the determination of compliance, 2. Periodic inspections and testing, and 3. Specific testing, monitoring, recordkeeping, and reporting requirements specified by Subpart Cc.	60.25(b) of Subpart B and 60.34c and 60.35c of Subpart Cc	3.8
Certification that a public hearing was held before the State plan was adopted and list of the attendees at the hearing and their affiliation, with a summary of their presentations and handouts	60.23(f)(1) and (2) of Subpart B	3.9
State progress reports	60.25(f) of Subpart B	3.10

[a]See text of Section 3 and Appendix J of this document for additional discussion of the required elements of a State plan.

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All applicable requirements on MSW landfills and terms and conditions needed to implement and enforce these applicable requirements must remain continually in force throughout the time the landfill is subject to the State plan even if the enforceable mechanism, e.g., permit, expires.

If the State relies on a mechanism that is not a State rule to implement the Emission Guidelines, such as a regulatory order, the State must document in the State plan how the selected mechanism meets the emission standards for the designated pollutant (MSW landfill emissions, measured as NMOC) and attach a copy of the enforceable mechanism. A State operating permit can be used as the enforceable mechanism in a State plan, as long as the requirements contained in the permit are binding on the owner or operator as a matter of State law. When EPA approves the State plan, the requirements in the permit would then become federally enforceable. If a State rule is used, only citations of the overall rule and copies of the sections pertaining to MSW landfills are required. The State does not have to submit a copy of the entire rule. The State may submit a Section 111(d) State plan that relies on the requirements in the SIP to meet the Section 111(d) emission standard for NMOC emissions, where they are found to be adequate. If the State relies on existing or revised SIP emission limits to implement the Section 111(d) MSW landfill emission standards, the State must submit the Section 111(d) State plan citing the SIP and the date when it became effective and document how the SIP assures that the requirements of Section 111(d) are met. In all cases the mechanism(s) must be in place and effective by the date the State plan is submitted.

The EPA emphasizes that the determination of whether a particular mechanism may be used to enforce the Emission Guidelines in a particular State is a question of State law; the State law must give the State the requisite authority to enforce the emission limit using the legal mechanism identified by the State. Thus, a mechanism (for example, a regulatory order) that is approvable for one State under its State law might not be approvable if selected by another State under the law in that State.

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After a State incorporates a State-enforceable requirement into the State plan, and the plan has been approved by EPA and is effective, the State requirement, if it is to be codified, becomes federally enforceable.

3.2 Demonstration of Legal Authority

The Section 111(d) State plan must demonstrate that the State has the legal authority under current State law to adopt and implement the emission standards and compliance schedules in the Section 111(d) State plan. The legal authority must support the legal mechanism selected by the State to implement the emission limits for MSW landfills. The legal authority must be available to the State at the time the State submits its Section 111(d) State plan to EPA [40 CFR Part 60, Subpart B, § 60.26(c)]. States must submit with the Section 111(d) State plan copies of the laws or regulations that demonstrate the State's legal authority, unless: (1) such laws or regulations were approved when previously submitted under either 40 CFR Part 60, Subpart B or other sections of the CAA, and (2) the State can demonstrate that such previously submitted laws or regulations are applicable to the pollutants[4] for which the plan is submitted [§ 60.26(b)].

A State may use existing demonstrations of legal authority to meet the requirements of Subpart B. The legislative structure of the State will determine which existing authorities the State can use to implement the Section 111(d) requirements. This implementation guidance provides the minimum requirements of Section 111(d) pertaining to MSW landfills, and leaves the State flexibility to implement the requirements as long as provisions are enforceable under State law.

[4]For MSW landfills, the regulated pollutant is MSW landfill emissions, measured as NMOC.

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A State must include in its demonstration of existing legal authority a showing that it has the authority to:

1. Adopt emission standards and enforceable conditions (see Section 3.1) as well as compliance schedules applicable to the designated facilities and pollutant for which the Section 111(d) State plan is submitted;

2. Enforce the relevant laws, regulations, standards and compliance schedules referenced in Section 111(d);

3. Obtain information necessary to determine compliance;

4. Require recordkeeping, make inspections, and conduct tests;

5. Require the use of monitors and require emission reports of MSW landfill owners or operators; and

6. Make emission data available to the public.

Demonstrations of legal authority can take several forms. States that use a legal mechanism other than rulemaking to implement the Emission Guidelines should submit legal documentation, preferably an opinion by the State's Attorney General that the State possesses the adequate authority to implement and enforce the Section 111(d) State plan using that legal mechanism.

A State governmental agency other than the State air pollution control agency may be assigned responsibility for carrying out a portion of a Section 111(d) State plan, provided that the State demonstrates that the State governmental agency has adequate authority [§ 60.26(e) of Subpart B]. The State may authorize a local agency to implement a portion of the Section 111(d) State plan provided that the local agency demonstrates that it has adequate legal authority to implement that portion of the plan and the State is not relieved of responsibility [§ 60.26(e)].

3.3 Source Inventory

A complete source inventory of existing MSW landfills in the State that are regulated by the Emission Guidelines must be submitted as part of the Section 111(d) State plan

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[§ 60.25(a) of Subpart B]. An "existing" landfill is a landfill that commenced construction, modification, or reconstruction before May 30, 1991 and that has accepted waste at any time since November 8, 1987 or has additional capacity for future waste deposition. (Landfills that commenced construction, modification, or reconstruction since then are considered "new" and are subject to the NSPS instead of the Emission Guidelines.) "Municipal Solid Waste Landfill New Source Performance Standards and Emission Guidelines — Questions and Answers", posted on the TTN Web, contains additional information on applicability.

The source inventory should include existing MSW landfills with design capacities both above and below the 2.5 million Mg/yr or 2.5 million m^3/yr design capacity cutoff. Landfills below this capacity are not required to apply controls under the Emission Guidelines, but they are required to submit a design capacity report and supporting information to show that they are below the cutoff.

State air agencies may be able to obtain information on these landfills from their State solid waste agency counterparts. The 1984 Hazardous and Solid Waste Amendments to RCRA required States to establish a permit program or other system of prior approval to ensure that facilities receiving household hazardous waste or small quantity generator hazardous waste are in compliance with 40 CFR Part 257. This permit program was to be established by November 8, 1987. This permit program is a resource for States to use in locating landfills that are subject to the Emission Guidelines. Another source of information may be county and municipal governments.

One special consideration for identifying all of the existing MSW landfills is that some may be closed. Identifying and locating owners or operators of closed MSW landfills may be difficult; however, only landfills that have accepted MSW since November 8, 1987 or have additional capacity for future waste deposition are subject to the Emission Guidelines. Therefore, these landfills may have RCRA permits. Once a closed MSW landfill has been identified, the State will need to identify and locate the owner, operator, or responsible party.

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3.4 Emission Inventory

An emission inventory based on the MSW landfills source inventory required by § 60.25(a) of Subpart B, must be included in the Section 111(d) State plan. The inventory must present estimates of the pollutant regulated by the Emission Guidelines, which is NMOC. Emission estimates should be reported in Mg/yr NMOC. The emissions inventory must be made available to the general public and presented with the applicable emission standards.

In view of the limited requirements on landfills below the 2.5 million Mg or 2.5 million m^3 cutoff, the EPA will allow States, in limited circumstances, to submit emission inventories as part of State plans without developing emissions data where the development of such data would be unreasonable or impractical. For example, it may be unreasonable or impractical for an MSW landfill below the size cutoff to estimate NMOC emissions if the landfill is closed and there are no records of waste in place. A memo entitled, "Emission Inventory for MSWLF State plans" is posted on the TTN Web (http://www.epa.gov/ttn/oarpg/t3pgm.html) and discusses this policy in detail. The memo is also included in this document as Appendix K. The allowance for exclusion of NMOC emission from certain landfills below 2.5 million Mg or 2.5 million m^3 does not affect the requirement for States to submit an inventory of existing MSW landfills with the State plans. The memo provides details on situations where obtaining emissions data may be unreasonable or impractical.

3.4.1 Emission Estimation Procedures

Two different methods can be used to estimate emissions from landfills. To estimate emissions for State inventories, the procedures in AP-42, "Compilation of Air Pollutant Emission Factors"[5] are the preferred method unless site-specific data is available. To determine

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[5]AP-42 is the common name for the EPA document entitled "Compilation of Air Pollutant Emission Factors, Volume I: Stationary Point and Area Sources," Fifth Edition, January 1995, available from GPO or from the CHIEF TTN Website (http://www.epa.gov/ttn/chief). The landfill emission factors section was updated in November 1998.

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applicability of or compliance with the MSW Emission Guidelines, the owner or operator must use the tiered emission estimation procedure in § 60.754 of Subpart WWW or another method if it has been approved by the EPA Administrator as provided in § 60.752(b)(2)(i)(B).

The equations in Subpart WWW are the same as the AP-42 equations. However, the values of the variables used in the equations are different for the two methods. The variable values specified in Subpart WWW are purposefully conservative to protect human health, to encompass a wide range of landfills, and to encourage the use of site-specific data. The variable values in AP-42 would more accurately reflect current conditions at a landfill and thus yield more accurate emissions for the purposes of the emission inventory.

AP-42 Procedures. Emission estimation procedures for MSW landfills from AP-42, the "Compilation of Air Pollutant Emission Factors" are presented in Appendix D. These procedures, from Section 2.4, Municipal Solid Waste Landfills have been updated to reflect changes to the Section which were published in September 1997. AP-42 includes equations that estimate emissions as a function of three variables: the NMOC concentration in landfill gas (C_{NMOC}); the methane generation rate constant (k); and the refuse methane generation potential (L_o). Although site-specific testing is not required for developing the emission inventory, it is preferable to use site-specific measured data for the variables when it is available because it would better reflect the conditions at a particular landfill. If site-specific data is not available, default values for these variables, which are found in AP-42, can be used. The default values for these variables are designed to provide typical, or average, estimates of landfill emissions and are appropriate for use in State emission inventories. However, it should be stressed that the AP-42 default values should NOT be used to determine applicability of or compliance with the MSW landfills Emission Guidelines.

Subpart WWW Procedures. Under the Emission Guidelines, the owner or operator must use the tiered emission estimation procedure in § 60.754 of Subpart WWW to determine whether the annual emission rate equals or exceeds the 50 Mg/yr NMOC cutoff and whether the landfill must be controlled. The owner or operator must use the equations and Tier 1 default values provided in the NSPS and the Emission Guidelines to determine NMOC emissions

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or develop site-specific values using the Tier 2 or 3 procedures in § 60.754. If a MSW landfill equals or exceeds the 50 Mg/yr cutoff using Tier 1 procedures, they can apply controls or collect site-specific data and refine the emission estimates using Tier 2 or 3 procedures.

Computer Model for Calculating Emissions. A computer model is available to calculate landfill emissions. It uses equations that are the same as those in the Emission Guidelines and AP-42. The model contains default values from AP-42 that can be used to estimate emissions for inventories and permitting purposes. It also contains default values from the NSPS and Emission Guidelines that can be used to determine applicability of the Emission Guidelines. Appendix D provides information on the computer model and how to obtain it.

3.4.2 Annual Emission Reporting

In addition to the initial emission inventory, States must submit annual progress reports on implementation of the Emission Guidelines. These annual progress reports, described in Section 3.10, must include updated NMOC emission rate data (per § 60.25(a), (e), and (f) of Subpart B). To avoid duplication, these updated emission estimates must be included in the annual State Implementation Plan (SIP) reports required by § 51.321. These annual reports must update the emission inventory for those sources whose emissions have changed more than 5 percent from the most recently submitted emission data (as specified in §§ 51.321 through 51.323). If emissions from an MSW landfill have not changed more than 5 percent, then the State must update the year of record of the previously reported emission data. This emission data must be reported to the Aerometric Information Retrieval System Facility Subsystem (AFS) as specified in 40 CFR Part 60, Appendix D. AFS is a repository of emission information for stationary sources that has now superseded the National Emissions Data System (NEDS) described in 40 CFR Part 60, Appendix D. A discussion of other types of information that must be included in the annual progress reports is contained in Section 3.10.

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3.5 Emission Standards

3.5.1 Allowable Emission Rates and Control Requirements

The State plan must include emission standards that prescribe allowable emission rates for existing MSW landfills. Subpart B [§ 60.24(c)] specifies that emission standards should be "no less stringent than" the Subpart Cc Emission Guidelines, except as provided under § 60.24(f), discussed in Section 3.11.

The Emission Guidelines require control of emissions from existing MSW landfills (that is, MSW landfills that commenced construction, modification, or reconstruction before May 30, 1991 and have not been modified or reconstructed since May 30, 1991 and have accepted waste at any time since November 8, 1987 or have additional capacity for future waste deposition) that:

- have a design capacity greater than or equal to 2.5 million Mg and 2.5 million m^3; and
- have an NMOC emission rate of 50 Mg/year or more.

The level of control required by the Emission Guidelines for these landfills includes a collection and control system. The collection system must meet certain design criteria. The control system must either:

- achieve 98 percent NMOC reduction (by weight, determined by the performance test procedures specified in the rule); or
- be an enclosed combustion device achieving an outlet NMOC concentration of less than 20 ppmv (as hexane, dry basis at 3 percent oxygen); or
- be an open flare meeting the design and operating specifications of § 60.18 of 40 CFR Part 60 Subpart A.

State plans must generally require this same level of control.

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Section 60.24(b)(1) of Subpart B specifies that Section 111(d) State plans should include emission rates, or if these are impractical, State plans may contain equipment specifications. The Emission Guidelines for existing MSW landfills provide a combination of emission limits and design criteria. Emission limits (for example, 98 percent reduction) are practical for most control devices and are included in the Emission Guidelines. However, it is not practical to establish numerical limits or measure performance for landfill gas collection systems and flares, so design criteria are provided for gas collection systems and flares. Thus, a State plan that allows design criteria for gas collection systems and flares similar to the Emission Guidelines will meet the requirements of § 60.24(b)(1).

Section 60.24(b)(1) further specifies that if emission standards prescribing equipment specifications are established, the State plan must set forth to the degree possible the emission reductions achievable by implementation of such specifications. The State plan may permit compliance by the use of equipment determined by the State to be equivalent to that prescribed. The Subpart Cc Emission Guidelines contain design criteria rather than prescriptive equipment specifications. They also provide for submission of alternative collection system design plans for systems that do not meet the design criteria for active collection systems and they provide for approval of alternative collection systems and control devices. Therefore, State plans that allow alternative equipment that meet the design criteria for active and passive collection systems specified in the Emission Guidelines will fulfill the intent of § 60.24(b)(1). Section 60.24(f) allows the State in certain case-by-case situations to provide for a less stringent standard (see Section 3.11).

3.6 Process for Review of Design Plans

The Emissions Guidelines [§ 60.33c(b) of Subpart Cc] require State plans to include a process for State review and approval of site-specific design plans for required gas collection and control systems. If MSW landfill emissions equal or exceed 50 Mg/yr, the landfill owner or operator must submit a site-specific design plan within 1 year. The plan must be prepared by a professional engineer and must meet the design criteria in § 60.752(b)(2)(ii) of Subpart WWW. The plan must also conform to design specifications for active collection

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systems in § 60.759 of Subpart WWW or include a demonstration of the sufficiency of alternative provisions [see § 60.752(b)(2) of Subpart WWW]. Further information about the design criteria and examples of alternative designs are contained in "Municipal Solid Waste Landfills, Volume 1: Summary of the Requirements for the New Source Performance Standards and Emission Guidelines for Municipal Solid Waste Landfills" (EPA-453/R-96-004).

The process that the State will use to review the gas collection and control system design plan must be described in the State plan. The description of the process in the State plan could include information on review responsibilities, schedules, and notification procedures such as communication of reasons for disapproval. States are encouraged to review the design plans expeditiously so that there is sufficient time after approval for the landfills to install controls prior to the compliance date.

3.7 Compliance Schedules

To comply with the emission limits contained in the Section 111(d) State plan, existing MSW landfills may need to install emission controls. The State plan must contain schedules for controlling emissions from these landfills. The elements included in a compliance schedule are listed in Table 3-2.

3.7.1 Compliance Times

The compliance schedules for MSW landfills are developed by the State air pollution control agency considering input from the public and input from the MSW landfills owners and operators. The Emission Guidelines place certain restrictions on these schedules.

The Emission Guidelines [§ 60.36(c)] specify that owners or operators must accomplish specific tasks within 30 months after the Annual Emission Rate Report first shows that emissions equal or exceed 50 Mg/yr of NMOC. These tasks include planning, awarding of contracts, installing MSW landfill air emission collection and control equipment capable of meeting the Emission Guidelines, and complying with the Emission Guidelines.

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Table 3-2. Schedule for MSW Landfill Compliance with the Emission Guidelines

State plan submittal to EPA	December 12, 1996
EPA approval of State plan	April 12, 1997
Submit Design Capacity Report. Also submit first Annual Emission Rate Report if design capacity is greater than or equal to 2.5 million Mg and 2.5 million m^3	A set date in State plan. For consistency with Subparts Cc and WWW, 90 days after the effective date of the EPA's approval of the State plan.
If not in compliance by this date, need enforceable increments of progress for MSW landfills	April 12, 1998
Submit a final control plan. (The final control plan may be interpreted to be the same as the site-specific collection and control system design plan required by the Emission Guidelines.)	A set date in State plan. For consistency with Subparts Cc and WWW, the collection and control system design plan must be submitted within 1 year after the date of the landfill's submittal of the first Annual Emission Rate Report that shows that NMOC emissions first equal or exceed 50 Mg/yr of NMOC
Award contracts for gas collection and control system	A set date in State plan
Initiate construction or installation of gas collection and control system	A set date in State plan
Complete construction and installation of gas collection and control system	A set date in State plan. For consistency with Subpart Cc, installation of a collection and control system capable of achieving compliance with the Emission Guidelines must be accomplished within 30 months after a landfill's annual emission rate report first shows that emissions equal or exceed 50 Mg/yr of NMOC.[a]
Final compliance date for MSW landfill	A set date in State plan. For consistency with Subpart Cc, the collection and control system must be operating in compliance with the Emission Guidelines within 30 months after a landfill's annual emission rate report first shows that emissions equal or exceed 50 Mg/yr of NMOC.[a]
Initial performance test for MSW landfill control system	As scheduled in State plan and for consistency with the NSPS general provisions, no later than 180 days after installation of the collection and control system
Reports of periodic monitoring results	Annually after compliance date

[a]On a case-by-case basis, the State may provide for a longer compliance schedule only if the State demonstrates in the Section 111(d) State plan that the criteria in § 60.24(f) of Subpart B are met, and the EPA approves the compliance schedule.

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States can require landfills to comply sooner than the dates specified in the Emission Guidelines. In fact, § 60.24(c) specifies that State plans must require compliance as expeditiously as practicable, but no later than the compliance times suggested in the Emission Guidelines. The EPA believes that many landfills will need the compliance time specified in the Emission Guidelines to design and install collection and control systems. A shorter compliance time may be specified if a State determines more rapid compliance is reasonable for certain landfills, or groups of landfills. States may provide for a longer compliance schedule on a case-by-case basis (see Section 3.11.3).

3.7.2 Increments of Progress

Compliance schedules for MSW landfills with compliance dates that extend more than 1 year beyond the date of State plan approval must include legally enforceable increments of progress towards compliance as required by § 60.24(e) of Subpart B. Because the Emission Guidelines allow 30 months after the first Annual Emission Rate Report shows NMOC emissions equal or exceed 50 Mg/yr for compliance, State plans that are based on the Emission Guidelines will need to include increments of progress. Each increment of progress in § 60.21(h) of Subpart B must have an enforceable compliance date in the Section 111(d) State plan that may include such additional increments of progress as may be necessary for close and effective supervision of progress toward final compliance.

The minimum five increments of progress required by § 60.21(h) of Subpart B for each MSW landfill within a State are as follows:

1. Submitting a final control plan. The control plan may be interpreted to be the same as the site-specific collection and control system design plan required by the Emission Guidelines (see Section 3.6). If the State plan uses the schedule in Subparts Cc and WWW, an Annual Emission Rate Report is due 90 days after the effective date of EPA's approval of the State plan and the control plan is due within 1 year of the date of the first Annual Emission Report showing that the NMOC emission rate is 50 Mg/yr or greater. In this example, the date of the increment of progress is tied to the date of the annual emission report;

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2. Awarding contracts for construction of collection and control systems or orders for purchase of components;

3. Initiating on-site construction or installation of the collection and control systems;

4. Completing on-site construction or installation of collection and control systems; and

5. Final compliance.

All five increments of progress for MSW landfills can be fixed calendar dates or floating dates (such as the example shown for increment No. 1). The floating dates can be tied to the effective date of EPA's approval of the State plan or the date the Annual Emission Rate Report shows that NMOC emissions equal or exceed 50 Mg/yr.

As previously discussed, Subpart Cc requires the fourth increment, the installation of collection and control systems capable of meeting the Emission Guidelines to be completed within 30 months after the date the first Annual NMOC Emission Rate Report shows NMOC emissions equal or exceed 50 Mg/yr. The landfill must also be in compliance (increment 5) at this time.

EPA strongly recommends that a date for the initial official performance test of the control device be included in the Section 111(d) State plan. Following installation of the collection and control system, a performance test must be completed within 180 days. In addition, the Section 111 general provisions (40 CFR 60 Subpart A) require a 30-day notice before a performance test. The report of the performance test results must be submitted within 60 days after the test is conducted. These test results are for demonstrating whether or not the MSW landfill is in compliance with the emission standards after the controls are installed. This performance test timing is consistent with other EPA air regulations for existing sources, such as the NESHAP general provisions (40 CFR 63 Subpart A). Note that the "initial" official performance test denoted above does not mean the first ever test but rather the first official test for determining compliance; that is, EPA would expect MSW landfill owners and operators to conduct preliminary tests for their own use (similar to other industry owners and operators who

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typically conduct preliminary tests to tune equipment) at least two to three months before the scheduled initial official performance test. Preliminary tests enable MSW landfill owners to make any necessary "shakedown" adjustments and retest before the initial official performance test. EPA does not have to be notified of the unofficial tests nor do they have to be on site for the unofficial tests.

The Section 111(d) State plan may include one set of increments with compliance dates applicable to all MSW landfills within the State or it may vary the compliance dates from one MSW landfill to another to address specific issues relevant to individual landfills. In all cases, the enforceable increments of progress must be arranged chronologically, and the compliance dates must be set to ensure full compliance with the applicable requirements as expeditiously as practicable [§ 60.24(c) of Subpart B]. For example, a State plan that requires a MSW landfill to submit a final control plan no later than 2 years after the effective date of EPA's approval of the State plan will likely be disapproved because the increment is too close to the end of the compliance window, does not appear to ensure expeditious progress, and thus jeopardizes timely compliance. Although there may be MSW landfill-specific reasons for other schedules, EPA would expect the control plan to be submitted within 15 months of the effective date of EPA's approval of the State plan (90 days for the first Annual Emission Rate Report plus 1 year for the control plan if NMOC emissions equal or exceed 50 Mg/yr). EPA would expect contracts to be awarded within about 20 months for landfills that must comply within 33 months (90 days for the Annual Emission Rate Report plus 30 months for compliance, if NMOC emissions equal or exceed 50 Mg/yr).

3.8 Testing, Monitoring, Recordkeeping, and Reporting

The Section 111(d) State plan must include requirements for the testing, monitoring, recordkeeping, and reporting provisions from the Emission Guidelines.

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3.8.1 Requirements of the Emission Guidelines

The testing and monitoring provisions are specified in the MSW landfills Emission Guidelines (§ 60.34c of Subpart Cc). They apply to landfills with design capacities greater than or equal to 2.5 million Mg and 2.5 million m^3, and include, in particular:

- calculation of the MSW landfill NMOC emission rate using the procedures in § 60.754 of Subpart WWW to determine whether the annual emission rate equals or exceeds the emission rate cutoff of 50 Mg/yr;
- the operational standards in § 60.753 of Subpart WWW;
- the compliance provisions in § 60.755 of Subpart WWW; and
- the monitoring provisions in § 60.756 of Subpart WWW.

For landfills that emit 50 Mg/yr or more of NMOC, a performance test is required to demonstrate that the control device achieves the specified emission limits. The operational standards, compliance, and monitoring provisions require periodic monitoring of surface methane concentration, wellhead temperature, and nitrogen or oxygen level. Details on the compliance and monitoring requirements are contained in Subparts Cc and WWW (Appendix I). The document, "Municipal Solid Waste Landfills, Volume 1: Summary of the Requirements for the New Source Performance Standards and Emission Guidelines for Municipal Solid Waste Landfills" (EPA-453/R-96-004) further explains these requirements.

The recordkeeping and reporting provisions are specified in the MSW landfills Emission Guidelines (§ 60.25c of Subpart Cc). For approval, the State plan must include:

- the reporting provisions in § 60.757 of Subpart WWW; and
- the recordkeeping provisions in § 60.758 of Subpart WWW.

The MSW landfill owner or operator must maintain records of the design capacity, performance test, and monitoring data for five years. Certain records on collection and control system design

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and the initial performance test must be kept for the life of the control equipment. The MSW landfill owner or operator must submit an initial design capacity report. If the design capacity is greater than or equal to 2.5 million Mg and 2.5 million m^3, the landfill owner or operator must submit Annual NMOC Emission Rate Reports.[6] Both the design capacity report and the first Annual Emission Rate Report are due within 90 days of the effective date of EPA's approval of the State plan. If NMOC emissions are 50 Mg/yr or more, a collection and control system design plan must be submitted. An initial test report and annual report of testing and monitoring results are required after the collection and control system is installed. Closure reports are required when the landfill closes. These recordkeeping and reporting requirements are described in more detail in the "Municipal Solid Waste Landfills, Volume 1: Summary of the Requirements for the New Source Performance Standards and Emission Guidelines for Municipal Solid Waste Landfills" (EPA-453/R-96-004). The regulatory text of these requirements are contained in Subpart Cc and Subpart WWW (Appendix I).

A State plan that incorporates the testing, monitoring, reporting, and recordkeeping requirements specified in Subpart Cc will be consistent with the State plan requirements in Subpart B. Under § 60.25(b) of Subpart B, State plan requirements for monitoring compliance must include the following:

- legally enforceable requirements for owners and operators to keep records of the nature and amount of emissions and any other information that may be necessary to enable the State to judge compliance. This information must be reported periodically to the State (Subpart Cc requires such records and reports);

- legally enforceable requirements that provide for periodic inspection and testing (Subpart Cc requires periodic inspection and monitoring); and

- provisions for making reports of emission data, correlated with the emission standards that apply, available to the general public. This would include the Annual Emission Rate Reports, in Mg/yr, that must be submitted for uncontrolled landfills. The reported annual emission rate

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[6]If estimated NMOC emissions are less than 50 Mg/yr for each of the next 5 consecutive years, the owner or operator may elect to submit a 5-year emission rate report instead of Annual Emission Rate Reports per § 60.757(b) of Subpart WWW.

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would be compared to the 50 Mg/yr threshold to determine whether controls must be installed.[7]

3.8.2 Provisions for Requirements Other Than Those in the Emission Guidelines

Requirements in State plans for compliance demonstration, monitoring, recordkeeping, and reporting must be at least as stringent as the Emission Guidelines. In developing the Emission Guidelines, EPA sought to develop a system that would provide all the information necessary to determine compliance, yet would not be burdensome to landfills or generate unnecessary paperwork. However, a State can choose to require more frequent reports or additional information. Test methods and procedures for determining compliance that are different than those specified in 40 CFR Part 60, Appendix A may be specified in the plan as allowed in § 60.24(b) of Subpart B. These alternatives must be shown to be "equivalent methods," or acceptable "alternative methods" as defined in § 60.2 of Subpart A.

3.9 Public Hearings

Public participation, under the provisions of the CAA, is an important right and responsibility of citizens in the State process of developing, adopting, and implementing Section 111(d) State plans. As with State Implementation Plans (SIPs) for criteria pollutants, EPA regulations in 40 CFR Part 60, Subpart B, make it clear that citizen input on Section 111(d) State plans is encouraged in order to help define appropriate emission standards and compliance schedules. Under Subpart B, some minimum public participation requirements are as follows:

1. Reasonable notice of opportunity for one or more public hearing(s) at least 30 days before the hearing.

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[7]For landfills that require control, the emission standards are expressed in terms of design criteria and operational requirements for the gas collection system and a percent reduction for the control device, instead of emission rate limits. Therefore, the Subpart B requirement to "correlate" the annual emission inventory information (in Mg/yr, discussed in Section 3.4) with the landfill emission standards is not relevant for controlled landfills. The performance testing, monitoring, and recordkeeping procedures in the Emission Guidelines are appropriate for determining compliance with the percent reduction limit and collection system requirements.

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2. One or more public hearing(s) on the Section 111(d) State plan (or revision) conducted at location(s) within the State, if requested.

3. Date, time, and place of hearing(s) prominently advertised in each region affected.

4. Availability of draft Section 111(d) State plan for public inspection in at least one location in each region to which it will apply.

5. Notice of hearing provided to:

   a. EPA Regional Administrator
   b. Local affected agencies
   c. Other States affected

6. Certification that the public hearing, if held, was conducted in accordance with Subpart B and State procedures.

7. Hearing records must be retained for a minimum of two years. These records must include the list of commenters, their affiliation, summary of each presentation and/or comments submitted, and the State's responses to those comments.

3.10 State Progress Reports to EPA

States are required under § 60.25(e) and (f) to submit to EPA annual reports on the progress of plan enforcement. These reports must be incorporated into the reports required by 40 CFR § 51.321. Inclusion in this § 51.321 report is intended to avoid duplicative reporting. The first progress report is due 1 year after plan approval or promulgation of a plan by EPA. Section 60.25(f) applies to all regulated sources; however, MSW landfills and emissions from MSW landfills are different from typical sources and emissions. The following list has been modified to reflect how the progress report items specifically apply to MSW landfills.

1. Enforcement actions. The State must report enforcement actions initiated against a MSW landfill during the reporting period. For example, the State must report any enforcement actions taken in response to a compliance schedule or emission limit violation.

2. Increments of progress. The State must report achievement of increments of progress made by landfills such as submittal of a final control plan

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(design plan) or initiation of on-site construction of the collection and control system.

3. Identification of MSW landfills that have closed and ceased to operate a collection and control system. Landfills that have ceased to accept MSW will continue to emit NMOC. Emission Guidelines require the control system to be operated even after the landfill has closed. Control systems may be removed after: a closure report has been submitted, the collection and control system has been operated a minimum of 15 years, and NMOC emissions are less than 50 Mg/yr. The State progress report should identify closed MSW landfills that have met these criteria and have ceased to operate their control systems.

4. Emission inventory for MSW landfills that were not in operation or were not identified at the time of plan development. Except for MSW landfills that were not identified in the State plan and were later determined to be affected by the Emission Guidelines, most existing MSW landfills would have been in operation at the time of plan development.

5. Updated information or emission data. The State must report updated landfill information such as any increases in design capacity and newly identified existing MSW landfills that were not included in the State plan. In addition, emissions data must be reported for existing MSW landfills, if the annual emission rate from the landfill has changed by more than 5 percent from the previous year, as discussed in Section 3.4.2. Emissions must also be reported if the annual emission rate report submitted by a MSW landfill shows that emissions have increased to 50 Mg/yr or more, such that the landfill now requires control.

6. Test reports and concurrent data. Subpart B requires that the initial performance test and concurrent process data be submitted with an annual report. However, since MSW landfill emissions are not generated by a manufacturing process, concurrent process data are not applicable; therefore, control device operating conditions should be reported with the performance test.

States may want to include additional information on periodic inspection and testing activities, emission and parameter exceedances, QA/QC, outreach activities, Title V or other permit condition compliance status, and compliance assistance activities. Some States and EPA regional offices have developed more specific or tailored reporting and recordkeeping procedures via Memoranda of Agreements, Program Specific Guidance for Section 105 Grants, and the Timely and Appropriateness Guidance. For example, some EPA offices prefer that the

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States retain the performance test reports until EPA requests review as part of a compliance determination or other action. The State and EPA will continue to have discretion on the format of the annual reports. States should work with their EPA regional office to determine appropriate reporting procedures for MSW landfill State plans.

3.11 State Flexibility

States may request an extension to the submittal date of their State plans or prescribe less stringent emission standards or longer compliance schedules than the Emission Guidelines. These case-by-case situations are described below.

3.11.1 Submittal of State Plan

Extension of Submittal of State Plan. Section 60.27(a) allows the EPA Administrator to extend the period of submission of plans or revised plans if the Administrator determines this to be necessary. If a State requests an extension, the State must demonstrate why such an extension is necessary.

3.11.2 Emission Standards

States may prescribe more stringent emission standards than the Emission Guidelines. States may prescribe less stringent emission standards only in unique situations. These case-by-case less stringent standards must be justified in the State plan and are subject to EPA approval. The provisions for allowing less stringent emission standards are provided in § 60.24(f) of Subpart B. This paragraph States that on a case-by-case basis for particular designated facilities, or classes of facilities, States may provide for the application of less stringent emission standards if certain criteria are met. These criteria are: (1) unreasonable cost of control resulting from age, location, or design, (2) physical impossibility of installing necessary control equipment, or (3) other factors specific to the MSW landfills that make application of a less stringent standard significantly more reasonable. The State is responsible for demonstrating the reason for any less stringent emission standards in its State plan.

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The MSW landfill Emission Guidelines are a health-based Section 111(d) emission standard rather than a welfare-based standard as have been some previous Section 111(d) standards. As a health-based standard, greater consideration should be given to the health impacts of a less stringent emission standard during the development and evaluation of State standards for MSW landfills. Any less stringent emission standards should be carefully reviewed to assure that public health will not be adversely affected by MSW landfill emissions.

Public comments on the landfill NSPS and Emission Guidelines contain examples of situations where a State might want to consider a less stringent standard. These public comments are summarized in the background information document, "Air Emissions from Municipal Solid Waste Landfills — Background Information for Final Standards and Guidelines," (EPA-453/R-94-021). For example, an existing MSW landfill might already have installed a 95 percent efficient combustion control device prior to proposal of the Emission Guidelines. Engineering analysis might show that the existing control device cannot be upgraded to achieve 98 percent. The State might judge the costs of replacing the control device to be unreasonable in light of the 3 percent additional reduction that would be achieved. Another example that might warrant special consideration would be a landfill that closed on or after November 8, 1987, but before the May 1991 proposal date and that has no means of obtaining funding for installation of a control system. A third situation would be a landfill that accepts very little MSW and, because of the site-specific waste mixture and landfill design characteristics, experiences unreasonable costs relative to typical landfills. It should be stressed that the State must demonstrate that one or more of the criteria in § 60.24(f) are met and gain EPA approval in order to apply a less stringent standard.

3.11.3 Compliance Schedules

States have the option of allowing longer compliance times for particular MSW landfills or classes of MSW landfills on a case-by-case basis if certain criteria listed in § 60.24(f) are met. These criteria are the same as the criteria for a less stringent standard. These criteria allow States discretion in regulating individual MSW landfills. In the plan, the State must demonstrate that one of these criteria apply when a less stringent compliance schedule is

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specified for a MSW landfill or class of MSW landfills. EPA approval is required for less stringent control system schedules. As mentioned in Section 3.11.2, the MSW landfill Emission Guidelines are a health-based standard rather than a welfare-based standard. As a health-based standard, greater consideration should be given to the health impacts of any less stringent compliance schedule during the development and evaluation of State plans for MSW landfills.

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4.0 ANSWERS TO SOME GENERAL QUESTIONS ABOUT SECTION 111(D) STATE PLANS

This section contains answers to some frequently asked questions about development and submittal of Section 111(d) State plans. Additional questions and answers are contained in the document "Municipal Solid Waste Landfill New Source Performance Standards and Emission Guidelines—Questions and Answers," available on the TTN Web.

Question No. 1: If a State uses a SIP regulation as a basis for the enforceable mechanism in a State plan, does the State need to demonstrate legal authority?

> **Answer**: A State can select from a range of legal mechanisms as described in this summary document provided that the State can show it has adequate legal authority. A demonstration of legal authority is required in all cases except for State rules. If a SIP rule is used, citations, rather than copies of actual State legal authority are adequate. The State must show that the SIP requirements are adequate to meet the NMOC control requirements in the Emission Guidelines. [See § 60.26(b) of Subpart B].

Question No. 2: Do emission limits in the State plan need to be the <u>same</u> as the emission limits in the Subpart Cc Emission Guidelines?

> **Answer**: The emission limits in the State plan must generally be "no less stringent than" the Emission Guidelines, and EPA recommends that the limits be presented in the same regulatory format as the Emission Guidelines (for example, a percent reduction or concentration limits for the control device and design criteria for the gas collection system). If a regulatory format other than that used in the Emission Guidelines is used in a State plan, then the State must show how the format correlates to the format in the Emission Guidelines and demonstrate that it is no less stringent than the Emission Guidelines. In limited case-by-case situations, a State plan may request approval of less stringent emission limits. As described in Section 3.11.2, the State plan would need to demonstrate that the criteria in § 60.24(f) of Subpart B are met and EPA approval would be required.

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Question No. 3: Does the State plan need to address each MSW landfill located in the State in the inventory?

> **Answer**: Only existing MSW landfills that are subject to the Emission Guidelines must be addressed by the State plan and included in the inventory.

Question No. 4: Can a State plan identify only air pollution control equipment to be installed or must it include emission limits?

> **Answer**: A State plan must include emission standards that are no less stringent than the Emission Guidelines, and they must apply them to each MSW landfill that meets the applicability criteria in the Emission Guidelines (see Section 3.5). The Emission Guidelines include percent reduction and outlet concentration standards for control devices. They also include design criteria for gas collection systems and flares, because it was not feasible to establish a numerical limit for these controls. Prescriptive equipment specifications are not required, and alone are unacceptable.

Question No. 5: Do reporting requirements in State plans apply to MSW landfill operators or just State agencies?

> **Answer**: There are requirements that apply to MSW landfill operators and requirements that apply to State agencies. The State has responsibilities to develop the State plan and to report implementation progress to EPA. The MSW landfill owner or operator must show expeditious progress on achieving compliance by the dates set and then show continuing compliance with the standard by a performance test and periodic monitoring, recordkeeping, and reporting. Additional information on testing, monitoring, recordkeeping, and reporting requirements that apply to MSW landfill owners or operators are contained in MSW Landfills, Volume 1, (EPA-453/R-96-004), and in Subparts Cc and WWW (see Appendix I).

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Question No. 6: Are fixed calendar dates required in increments of progress?

Answer: Either calendar dates or floating dates can be used for these increments of progress. There are five mandatory increments of compliance. These are: 1) submittal of a final control plan (collection and control system design plan); 2) awarding of contracts; 3) initiation of on-site construction of collection and control systems; 4) completion of on-site installation of collection and control systems; and 5) final compliance.

The State may submit a schedule that uses either all calendar dates or a mix of calendar and floating dates, or a State could submit a schedule with dates that all float. The dates may float from the effective date of EPA's approval of the State plan or the date the Annual Emission Rate Report shows that NMOC emissions equal or exceed 50 Mg/yr.

For the fourth and fifth increments of progress, completion of installation of collection and control systems and final compliance, respectively, if a floating date is used, that date must be no later than 30 months after the Annual Emission Rate Report first shows that the landfill has reached or exceeded an annual NMOC emission rate of 50 Mg/yr .

Question No. 7: Are public hearings required prior to submittal of a State plan?

Answer: Adequate opportunity for public hearings is required. The requirements described in Section 3.9 of this document apply and require the opportunity for public hearings on State plans prior to submittal. If after adequate notice, no one requests a hearing, the hearing is not required.

Question No. 8: Can the States incorporate the MSW landfill progress reports into their 40 CFR Part 51, § 51.321 annual report for SIPs?

Answer: Yes, EPA encourages States/EPA coordination to work with the EPA to minimize any potential duplication of reporting requirements and to tailor the reports to ensure the most productive compliance and enforcement activities.

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Appendix A

NSPS and Emission Guideline Fact Sheet (40 CFR 60 Subpart Cc)

NSPS and Emission Guideline Fact Sheet (40 CFR 60 Subpart Cc)
Final Air Regulations for Municipal Solid Waste Landfills

On March 1, 1996, the Environmental Protection Agency (EPA), under authority of the Clean Air Act, issued a final regulation controlling emissions of a variety of air pollutants from new and existing large municipal solid waste landfills. This regulation was published in the Federal Register on March 12, 1996. Landfills subject to EPA's regulation accept and handle everyday household waste; they do not handle regulated hazardous waste. Currently, 60 percent of municipal solid waste generated in the United States is landfilled; 16 percent is incinerated; and 24 percent is recycled.

EPA worked in partnership with major stakeholders, including private industry, the National Association of Counties, the National League of Cities, and the Solid Waste Association of North America to develop the final rule.

What are the Health and Environmental Benefits?

As the waste in a landfill decomposes, it breaks down to form landfill gases, such as methane, smog-causing volatile organic compounds (VOCs), and air toxics, pollutants known or suspected of causing cancer and other serious health effects. Landfills are the largest anthropogenic source of methane emissions in the United States. Methane is a potent greenhouse gas that contributes to global warming.

EPA's final air rules for municipal solid waste landfills will achieve significant reductions in emissions of VOCs and air toxics, such as benzene, carbon tetrachloride, and chloroform. EPA's regulation will reduce emissions of VOCs, air toxics, and malodorous compounds from existing and new landfills by over 90,000 tons annually (a 53 percent reduction from current levels). This rulemaking will also result in significant reductions in emissions of methane, a major constituent of landfill gas and a potent greenhouse gas. By reducing methane emissions, EPA's regulation will also increase safety in and near landfills.

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How Does Today's Action Relate to the U.S. Climate Change Action Plan?

Landfills are the largest anthropogenic source of methane emissions in the United States, constituting about 40 percent of these sources. Methane reductions of over 50 percent in the year 2000, anticipated under this rulemaking, as well as reductions achieved by EPA's Landfill Methane Outreach Program, are important components of the U.S. "Climate Change Action Plan" to reduce emissions of greenhouse gases to 1990 levels by the year 2000. The rule alone will reduce greenhouse gas emissions by 37.1 million metric tons of carbon equivalent (6.2 million tons of methane). When the outreach program is included as well, total reductions will be 38.6 mmtce (6.8 million tons of methane).

This rulemaking and the EPA Landfill Methane Outreach Program (LMOP) go hand-in-hand to provide substantial reductions in greenhouse gas emissions. The new regulations will cause many landfills across the country to assess their landfill gas emissions and the potential for cost-effective recovery of energy from this gas. The LMOP will provide these landfills with guidance on how to comply with the regulations, including how to evaluate energy recovery options. Working together, these two cornerstone actions of the Climate Change Action Plan will encourage many landfills to capture and use their landfill gas.

What are the Main Components of EPA's Final Rule?

EPA's final rule takes the form of new source performance standards for new landfills and emission guidelines for existing landfills. States will adopt and enforce the emission guidelines for existing landfills. The regulation will require large landfills that emit landfill gas in excess of 50 megagrams (Mg) per year to control emissions. In general, controlling emissions involves drilling collection wells into the landfill and routing the gas to a suitable energy recovery system or combustion device. Specifically, the regulations will require the following:

- New and existing landfills designed to hold 2.5 million Mg and 2.5 million m^3 of waste or more will be required to install gas collection systems or prove that the

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landfill emits less than 50 Mg per year of non-methane organic compounds, including smog-causing VOCs and air toxics.

- EPA's final rule provides the owner or operator of a landfill with a tier system for determining if controls will be required. If the owner or operator initially calculates the emissions to be above the 50 Mg per year threshold by using default parameters provided in the regulation, the tier system provides the opportunity to conduct sampling and determine site specific values to demonstrate that emissions are below the emission threshold and that controls are not required.

- If emissions controls are required, the rule provides flexibility to industry by allowing landfill owners or operators to design their own gas collection and control system to fit their unique circumstances. A control device may be a flare or a device which utilizes the energy content of the gas, such as an internal combustion engine, a turbine, or a boiler.

- EPA's final rule contains an operational standard that requires a landfill's surface methane concentration to be monitored on a quarterly basis. If the surface concentration of methane is greater than 500 parts per million after three consecutive measurements, the regulation requires system expansion to comply with the rule.

The final rule will achieve substantial emission reductions without placing an undue financial burden on municipalities, and will place no burden on small municipalities (since small landfills are exempted from the regulation). Waste disposal costs will increase only about 20 to 40 cents per household. EPA anticipates that many landfills will use energy recovery systems, further reducing costs per household.

Who Will be Affected by EPA'S Final Rule?

Approximately 7000 landfills exist in the United States. However, over 90 percent of these landfills have design capacities less than the 2.5 million Mg exemption in the regulation. Thus, less than 10 percent are subject to the annual emission rate reports and/or control requirements. Of this 10 percent, about 6 percent will have emissions less than 50 Mg/yr, so will not be required to apply controls. The remaining 4 percent of the existing landfills nationwide will have emissions over 50 Mg/yr and will be subject to the control requirements of the Emission Guidelines.

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For Further Information...

Anyone with a computer and a modem can download the final rule from the Clean Air Act Amendments bulletin board (look under "Recently Signed Rules") on EPA's electronic Technology Transfer Network (TTN) by calling (919) 541-5742. For further information about how to access the board, call (919) 541-5384. For technical questions about the rule, contact Martha Smith of EPA's Office of Air Quality Planning and Standards at (919) 541-2421. For information on the EPA Landfill Methane Outreach Program (LMOP), call the LMOP Hotline at (202) 233-9042.

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Appendix B

MSW Landfills Implementation Timeline

MSW Landfills Implementation Timeline

State plans must be submitted by December 12, 1996, unless the State receives an extension. EPA has four months (that is, until April 12, 1997) to approve or disapprove the plan. Figure B-1 presents a timeline for submission and approval of Section 111(d) State plans to implement the MSW landfill Emission Guidelines. If the state does not submit an approvable plan, the EPA will promulgate a Federal Plan for the state.

The timeline for MSW landfill compliance as presented in Figure B-2 applies to existing MSW landfills with design capacities equal to or greater than 2.5 million Mg and 2.5 million m^3. (The compliance timeline for the NSPS is similar to the timeline for the Emission Guidelines, except that it starts as of March 12, 1996 [the date of promulgation of the NSPS] instead of the effective date of EPA's approval of the State plan.) The states must establish a compliance schedule that is no less stringent than the schedule in the Emission Guidelines (Subpart Cc), except in unusual case-by-case situations (see Section 3.11). As shown in Figure B-2, the first reports are due 90 days after the effective date of EPA's approval of the State plan.

If a MSW landfill emits 50 Mg/yr or more of NMOC as of the effective date of EPA's approval of the State plan, a site-specific collection and control system design plan must be submitted within 1 year after the first Annual Emission Rate Report is due, if the source is following the Emission Guidelines schedule. This Emission Rate Report is due within 90 days of the effective date of EPA's approval of the State plan, so the design plan is due within 1 year plus 90 days of the effective date of EPA's approval of the State plan. Installation of the collection and control system must be completed and the system must be in compliance within 30 months after the Emission Rate Report shows NMOC emissions are $\geq$ 50 Mg/yr (e.g., within 30 months and 90 days of the effective date of EPA's approval of the State plan).

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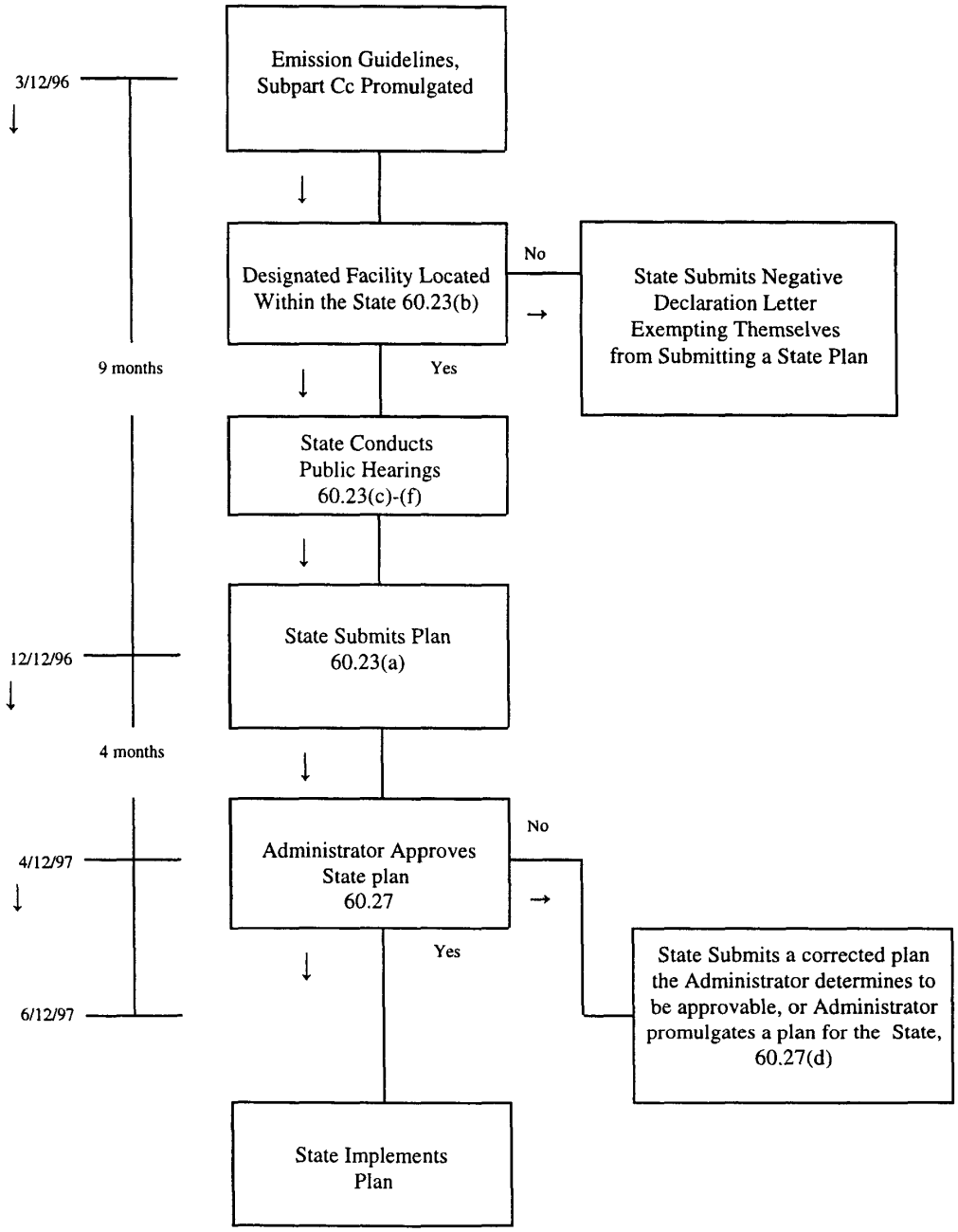

Figure B-1. State Plan Approval Process and Schedule

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Milestone	Compliance Schedule[a]
Design Capacity Report	Within 90 days after effective date of EPA's approval of the State plan
NMOC Emission Rate Report (if design capacity ≥ 2.5 million Mg and 2.5 million m^3)	Within 90 days after effective date of EPA's approval of the State plan, and then annually
Collection and Control System Design Plan	Within 1 year after reporting NMOC emissions ≥ 50 Mg/yr
Installation of Collection and Control System Completed (and operating in compliance)	Within 30 months after reporting NMOC emissions≥50 Mg/yr
Initial Performance Test of Collection and Control System to Document Compliance	Within 180 days of control system startup

[a] The time frames specified in this example are based on the dates in section 60.757 of Subpart WWW.

Figure B-2. General Milestones for the Compliance Schedule for An Existing MSW Landfill

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The compliance schedule is different for MSW landfills that have design capacities that are ≥ 2.5 million Mg and 2.5 million m^3 and emit less than the 50 Mg/yr emission rate cutoff on the effective date. Because landfill emissions increase over time as additional waste is deposited, a landfill may emit less than 50 Mg/yr when the State plan takes effect, but emissions may increase to greater than 50 Mg/yr in future years. The Emission Guidelines require such landfills to submit Annual Emission Rate Reports. The collection and control system design plan must be submitted within 1 year after the date of the first Annual Emission Rate Report shows that emissions equal or exceed 50 Mg/yr of NMOC. Collection and control systems must be installed within 30 months after the Emission Rate Report shows emissions of NMOC equal or exceed 50 Mg/yr. MSW Landfills, Volume 1 (EPA-453/R-96-004) presents additional information on landfill compliance requirements.

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Appendix C

Contacts

C1 EPA Regional MSW Landfill Rule Contacts
C2 State MSW Landfill Rule Contacts
C3 Other Contacts

Appendix C1

EPA Regional MSW Landfill Rule Contacts

EPA Regional MSW Landfill Rule Contacts

Regional Contact	Phone #	Fax #
Jeanne Cosgrove U.S. EPA/CAQ Region I (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont) John F. Kennedy Federal Bldg. Boston, MA 02203-001	617/565-9451	617/565-4940
Christine DeRosa U.S. EPA/25th floor Region II (New Jersey, New York, Puerto Rico, Virgin Islands) 290 Broadway New York, NY 10007-1866	212/637-4022	212/637-3901
James B. Topsale U.S. EPA/3ATT22 Region III (Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia) 1650 Arch Street Philadelphia, PA 19103-2029	215/814-2190	215/814-2114
Scott Davis U.S. EPA/APTMD Region IV (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee) 61 Forsyth Street, SW Atlanta, GA 30303	404/562-9127	404/562-9095
Charles Hatten U.S. EPA Region V (Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin) 77 W. Jackson Blvd. Chicago, IL 60604	312/886-6031	312/886-0617
Mick Cote U.S. EPA Region VI (Arkansas, Louisiana, New Mexico, Oklahoma, Texas) 1445 Ross Av., Suite 1200 Dallas, TX 75202-2733	214/665-7219	214/665-7263

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EPA Regional MSW Landfill Rule Contacts

Regional Contact	Phone #	Fax #
Ward Burns U.S. EPA/RME Region VII (Iowa, Kansas, Missouri, Nebraska) 726 Minnesota Av./ARTDAPCO Kansas City, KS 66101-2728	913/551-7960	913/551-7065
Lee Hanley U.S. EPA Region VIII (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming) 999 18th Street, Suite 500 Denver, CO 80202-2466	303/312-6555	303/312-6409
Patricia Bowlin U.S. EPA/RM HAW/17211 Region IX (American Samoa, Arizona, California, Guam, Hawaii, Nevada) 75 Hawthorne Street/Air-4 San Francisco, CA 94105	415/744-1188	415/744-1076
Catherine Woo U.S. EPA Region X (Alaska, Idaho, Oregon, Washington) 1200 Sixth Av. Seattle, WA 98101	206/553-1814	206/553-0404

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Appendix C2

State MSW Landfill Rule Contacts

State Contacts

Contact	State	Phone #	Fax #
REGION I			
Scott Koschwitz	CT	860/424-3427	860/424-4063
Nancy Seidman	MA	617/292-5593	617/556-1046
John Chandler	ME	207/287-2437	207/287-7641
Don Anderson	ME	207/287-2437	207/287-7641
Andy Bodnarik	NH	603/271-1370	603/271-1381
Barbara Morin	RI	401/277-2808	401/277-2017
Harold Garabedian	VT	802/241-3840	802/241-2590
REGION II			
John Elston	NJ	609/292-6710	
Tom Lynch	NY	518/457-2051	
Tom Christoffell	NY	518/457-7688	
Eduardo Del Rio	PR	787/767-8025	
REGION III			
Ron Amirikian	DE	302/323-4542	302/323-4561
Ruben Deza	MD	410/631-3240	410-631-3202
Carl York	MD	410/631-3234	410-631-3202
Jayme Graham	PA Allegheny Co.	412/578-8129	412-578-8058
John Slade	PA	717/783-9476	717/772-2303
Kris Ramamurthy	PA	717/787-9256	717/772-2303
Karen Sabasteanski	VA	804/698-4426	804-698-4510
Lucy Pontiveros	WV	304/558-1220	304-558-1222
REGION IV			
Jerold Griffies	AL	334/271-7861	334/271-7950
Larry Brown	AL	334/271-7861	334/271-7950
Venkata Panchakarla	FL	904/488-0114	904/922-6979
Kent Pierce	GA	404/363-7103	404/363-7100
Millie Ellis	KY	502/573-3382	502/573-3787
Mark Wyatt	MS	601/961-5367	601/961-5742
Tom Allen	NC	919/733-1489	919/715-7175
Renee Shealy	SC	803/734-4750	803/734-4556

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State Contacts

Contact	State	Phone #	Fax #
Malcolm Butler	TN	615/532-0600	615/532-0614
Gene Bradley	TN	615/532-0593	615/532-0614
REGION V			
Dick Forbes	IL	217/785-1889	
Pat Daniel	IN	317/233-0429	
Jerry Trautman	MI	517/373-7059	517-335-3122
Margaret McCourtney	MN	612/297-7894	612-297-8701
Tammy Hilkens	OH	614/644-3596	
Steve Dunn	WI	608/267-0566	608-267-0560
REGION VI			
Mark McCorkle	AR	501/682-0736	
Annette Sharp	LA	504/765-0914	
Karen Blackmore	LA	504/765-0130	
David Duran	NM	505/827-2950	
Angel Martinez	NM (Albuquerque)	505/768-1961	
Joyce Sheedy or Cheryl Bradley	OK	405/290-8247	405/962-2200
Gus Eghneim	TX	512/239-1965	
REGION VII			
Catharine Fitsimmons	IA	515/281-8034	515/281-8895
Chuck Layman	KS	913/296-1579	913/296-1545
Paul Myers	MO	573/751-4817	573/751-2706
Susan Fields	NE	402/471-0019	402/471-2909
REGION VIII			
Kirsten King	CO	303/692-3212	303/782-0278
Dave Klemp	MT	406/444-0286	406/444-5275
Tom Bachman	ND	701/328-5188	701/328-5200
Jackie Flowers	SD	605/773-5708	605/773-4068
Carol Neilson	UT	801/536-4000	801/536-4099
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State Contacts

Contact	State	Phone #	Fax #
REGION IX			
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REGION X			
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Sue Richards	ID	208/334-5898	
Kathleen Craig	OR	503/229-6833	
Judy Geier	WA	360/407-6850	

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Appendix C3

Other MSW Landfill Contacts

Other MSW Landfill Contacts

Contact	Phone #	Fax #
For information concerning analyses performed in developing the landfills rule, contact:		
Michele Laur U.S. Environmental Protection Agency Waste and Chemical Processes Group Emission Standards Division (MD-13) Research Triangle Park, NC 27711	919/541-5256	919/541-3470
For implementation issues, contact:		
Mary Ann Warner U.S. Environmental Protection Agency Program Review Group Information Transfer and Program Integration Division (MD-12) Research Triangle Park, NC 27711	919/541-1192	919/541-2664
For information on the Landfill Model, contact:		
Susan Thorneloe U.S. Environmental Protection Agency Air Pollution Prevention and Control Division (MD-63) Research Triangle Park, NC 27711 thorneloe.susan@epamail.epa.gov		919/541-2382
For enforcement and compliance assurance contact:		
Zofia S. Kosim, P.E. (2242A) U.S. Environmental Protection Agency Air Enforcement Division/ Office of Regulatory Enforcement Office of Enforcement and Compliance Assurance 401 M Street, S.W. Washington, DC 20460	202/564-8733	202/564-0015

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Other MSW Landfill Contacts (Continued)

Contact	Phone #	Fax #
To order documents/receive general information on the Landfill Methane Outreach Program, contact:		
LMOP Hotline Home page: http://www.epa.gov/lmop	1-888/STAR YES	703/934-3895
For more specific requests on landfill gas-to-energy, contact:		
Ed Coe U.S. Environmental Protection Agency 501 Third Street, N.W. Mail Code 6202J Washington, DC 20001	202/564-8994	202/565-2077
For information on monitoring and sampling methods contact:		
Foston Curtis U.S. Environmental Protection Agency Source Characterization Group Emissions, Monitoring, and Analysis Division (MD-19) Research Triangle Park, NC 27711	919/541-1063	919/541-1039

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Appendix D

Emission Estimation Procedures for State Plan Emissions Inventory

Emission Estimation Procedures for State Plan Emissions Inventory

The pollutants emitted from municipal solid waste (MSW) landfills include methane, carbon dioxide and non-methane organic compounds. The attached chapter from the EPA document "Compilation of Air Pollution Emission Factors (AP-42)"[1] contains emission estimation procedures and default values that can be used to calculate methane, carbon dioxide, and NMOC emissions for MSW landfill emissions inventories and other purposes. Emissions are calculated using equations (which are based on a first order decomposition model), as a function of three variables: the NMOC concentration in landfill gas (C_{NMOC}), the methane generation rate constant (k); and the refuse methane generation potential (L_o). The default values for these variables presented in AP-42 are designed to provide typical, or average, estimates of MSW landfill emissions and are appropriate for use in state emission inventories. An individual MSW landfill may emit more or less than calculated based on site-specific factors. The AP-42 document also provides calculations for the use and adjustment of site-specific data, if it is available (that is, to adjust measured NMOC concentration data for air infiltration). If site-specific measured values are available, it is preferable to use these rather than the default values.

It should be stressed that the AP-42 default values should NOT be used to determine applicability of or compliance with the MSW landfills Emission Guidelines. Under the Emission Guidelines and the NSPS, the owner or operator must use the tiered emission estimation procedure in § 60.754 of Subpart WWW or another method if it has been approved by the EPA Administrator as provided in § 60.752(b)(2)(i)(B) to determine whether the annual emission rate equals or exceeds the 50 Mg/yr cutoff and whether the MSW landfill must be controlled. The owner or operator must use the equations and Tier 1 default values provided in the NSPS and the Emission Guidelines to determine NMOC emissions or develop site-specific values using the Tier 2 or 3 procedures in § 60.754. The equations in Subpart WWW are the same as the AP-42 equations. However, the Tier 1 default values for methane generation potential (L_o) and methane generation rate constant (k) provided in the NSPS and the Emission Guidelines are purposefully conservative to protect human health, to encompass a wide range of MSW landfills, and to encourage the use of site-specific data.

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For more information about the AP-42 emission factors and documentation of the assumptions and calculations, see Chapter 2 in AP-42. The current version of AP-42 is included in this appendix (November 1998). Because AP-42 is updated periodically, the AP-42 section in this appendix should not be used for subsequent emission inventories unless verified to be current. For current information in AP-42, check the TTN Web at http:www.epa.gov/ttn/chief.

A computer model is also available to calculate MSW landfill emissions. The "Landfill Gas Emissions Model", utilizes a first-order decomposition model that is consistent with AP-42 and the NSPS and Emission Guidelines equations to estimate emissions of methane, carbon dioxide, NMOC and other pollutants. The model combines user-entered landfill operating characteristics with defaults derived from either the MSW landfills NSPS and Emission Guidelines or AP-42 to provide yearly estimates of gaseous emissions. These estimates may be displayed as text or in graphical depictions. The model also allows the user to replace internal defaults with landfill specific parameters to refine the calculations for a specific site.

The model is consistent with the equations specified in the MSW landfill NSPS and Emission Guidelines. MSW landfills using the model to calculate annual emission rates for purposes of NSPS or Emission Guidelines applicability determination must use the NSPS default values rather than the AP-42 default values. Those using the model for a state emissions inventory or for NSR or PSD permitting purposes should use site-specific measured values, and if these are not available, the AP-42 defaults.

A package with a diskette containing the model as well as the user's guide is available under the title: "Landfill Gas Emissions Model, Users Manual," Version 2.01 and may be purchased from:

National Technical Information Service
5285 Port Royal Road
Springfield, VA 22161
Telephone: (703) 487-4650

or:

accessed on the EPA TTN Web at http://www.epa.gov/ttn/catc/products.html# software.

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Additionally, information or questions regarding the models and their operation may be obtained from Susan A. Thorneloe, the EPA Project Officer overseeing its development. She may be contacted at:

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U.S. Environmental Protection Agency
Research Triangle Park, NC 27711
Fax: (919) 541-2382
thorneloe.susan@epamail.epa.gov

REFERENCES

1. U.S. EPA. Compilation of Air Pollutant Emission Factors, 5th ed. (AP-42), Volume I: Stationary Point and Area Sources, Section 2.4: Municipal Solid Waste Landfills," Research Triangle Park, North Carolina: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, November, 1998.

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2.4 MUNICIPAL SOLID WASTE LANDFILLS

2.4.1 General[1-4]

A municipal solid waste (MSW) landfill unit is a discrete area of land or an excavation that receives household waste, and that is not a land application unit, surface impoundment, injection well, or waste pile. An MSW landfill unit may also receive other types of wastes, such as commercial solid waste, nonhazardous sludge, and industrial solid waste. The municipal solid waste types potentially accepted by MSW landfills include (most landfills accept only a few of the following categories):

- MSW,
- Household hazardous waste,
- Municipal sludge,
- Municipal waste combustion ash,
- Infectious waste,
- Waste tires,
- Industrial non-hazardous waste,
- Conditionally exempt small quantity generator (CESQG) hazardous waste,
- Construction and demolition waste,
- Agricultural wastes,
- Oil and gas wastes, and
- Mining wastes.

In the United States, approximately 57 percent of solid waste is landfilled, 16 percent is incinerated, and 27 percent is recycled or composted. There were an estimated 2,500 active MSW landfills in the United States in 1995. These landfills were estimated to receive 189 million megagrams (Mg) (208 million tons) of waste annually, with 55 to 60 percent reported as household waste, and 35 to 45 percent reported as commercial waste.

2.4.2 Process Description[2,5]

There are three major designs for municipal landfills. These are the area, trench, and ramp methods. All of these methods utilize a three step process, which includes spreading the waste, compacting the waste, and covering the waste with soil. The trench and ramp methods are not commonly used, and are not the preferred methods when liners and leachate collection systems are utilized or required by law. The area fill method involves placing waste on the ground surface or landfill liner, spreading it in layers, and compacting with heavy equipment. A daily soil cover is spread over the compacted waste. The trench method entails excavating trenches designed to receive a day's worth of waste. The soil from the excavation is often used for cover material and wind breaks. The ramp method is typically employed on sloping land, where waste is spread and compacted similar to the area method, however, the cover material obtained is generally from the front of the working face of the filling operation.

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Modern landfill design often incorporates liners constructed of soil (i.e., recompacted clay), or synthetics (i.e., high density polyethylene), or both to provide an impermeable barrier to leachate (i.e., water that has passed through the landfill) and gas migration from the landfill.

2.4.3 Control Technology[1,2,6]

The Resource Conservation and Recovery Act (RCRA) Subtitle D regulations promulgated on October 9, 1991 require that the concentration of methane generated by MSW landfills not exceed 25 percent of the lower explosive limit (LEL) in on-site structures, such as scale houses, or the LEL at the facility property boundary.

The New Source Performance Standards (NSPS) and Emission Guidelines for air emissions from MSW landfills for certain new and existing landfills were published in the Federal Register on March 1, 1996. The regulation requires that Best Demonstrated Technology (BDT) be used to reduce MSW landfill emissions from affected new and existing MSW landfills emitting greater than or equal to 50 Mg/yr (55 tons/yr) of non-methane organic compounds (NMOCs). The MSW landfills that are affected by the NSPS/Emission Guidelines are each new MSW landfill, and each existing MSW landfill that has accepted waste since November 8, 1987, or that has capacity available for future use. The NSPS/Emission Guidelines [require control systems for] ~~affect~~ landfills with a design capacity of 2.5 million Mg (2.75 million tons) [and 2.5 million cubic meters (3.27 million cubic yards) that emit greater than or equal to 50 Mg/yr NMOCs]* ~~or more~~. Control systems require: (1) a well-designed and well-operated gas collection system, and (2) a control device capable of reducing NMOCs in the collected gas by 98 weight-percent.

Landfill gas (LFG) collection systems are either active or passive systems. Active collection systems provide a pressure gradient in order to extract LFG by use of mechanical blowers or compressors. Passive systems allow the natural pressure gradient created by the increase in pressure created by LFG generation within the landfill to mobilize the gas for collection.

LFG control and treatment options include (1) combustion of the LFG, and (2) purification of the LFG. Combustion techniques include techniques that do not recover energy (i.e., flares and thermal incinerators), and techniques that recover energy (i.e., gas turbines and internal combustion engines) and generate electricity from the combustion of the LFG. Boilers can also be employed to recover energy from LFG in the form of steam. Flares involve an open combustion process that requires oxygen for combustion, and can be open or enclosed. Thermal incinerators heat an organic chemical to a high enough temperature in the presence of sufficient oxygen to oxidize the chemical to carbon dioxide (CO_2) and water. Purification techniques can also be used to process raw landfill gas to pipeline quality natural gas by using adsorption, absorption, and membranes.

*[This clarification will be reflected in the next revision of AP-42.]

2.4.4 Emissions[2,7]

Methane (CH_4) and CO_2 are the primary constituents of landfill gas, and are produced by microorganisms within the landfill under anaerobic conditions. Transformations of CH_4 and CO_2

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are mediated by microbial populations that are adapted to the cycling of materials in anaerobic environments. Landfill gas generation, including rate and composition, proceeds through four phases. The first phase is aerobic [i.e., with oxygen (O_2) available] and the primary gas produced is CO_2. The second phase is characterized by O_2 depletion, resulting in an anaerobic environment, where large amounts of CO_2 and some hydrogen (H_2) are produced. In the third phase, CH_4 production begins, with an accompanying reduction in the amount of CO_2 produced. Nitrogen (N_2) content is initially high in landfill gas in the first phase, and declines sharply as the landfill proceeds through the second and third phases. In the fourth phase, gas production of CH_4, CO_2, and N_2 becomes fairly steady. The total time and phase duration of gas generation varies with landfill conditions (i.e., waste composition, design management, and anaerobic state).

Typically, LFG also contains a small amount of non-methane organic compounds (NMOC). This NMOC fraction often contains various organic hazardous air pollutants (HAP), greenhouse gases (GHG), and compounds associated with stratospheric ozone depletion. The NMOC fraction also contains volatile organic compounds (VOC). The weight fraction of VOC can be determined by subtracting the weight fractions of individual compounds that are non-photochemically reactive (i.e., negligibly-reactive organic compounds as defined in 40 CFR 51.100).

Other emissions associated with MSW landfills include combustion products from LFG control and utilization equipment (i.e., flares, engines, turbines, and boilers). These include carbon monoxide (CO), oxides of nitrogen (NO_x), sulfur dioxide (SO_2), hydrogen chloride (HCl), particulate matter (PM) and other combustion products (including HAPs). PM emissions can also be generated in the form of fugitive dust created by mobile sources (i.e., garbage trucks) traveling along paved and unpaved surfaces. The reader should consult AP-42 Volume I Sections 13.2.1 and 13.2.2 for information on estimating fugitive dust emissions from paved and unpaved roads.

The rate of emissions from a landfill is governed by gas production and transport mechanisms. Production mechanisms involve the production of the emission constituent in its vapor phase through vaporization, biological decomposition, or chemical reaction. Transport mechanisms involve the transportation of a volatile constituent in its vapor phase to the surface of the landfill, through the air boundary layer above the landfill, and into the atmosphere. The three major transport mechanisms that enable transport of a volatile constituent in its vapor phase are diffusion, convection, and displacement.

2.4.4.1 Uncontrolled Emissions — To estimate uncontrolled emissions of the various compounds present in landfill gas, total landfill gas emissions must first be estimated. Uncontrolled CH_4 emissions may be estimated for individual landfills by using a theoretical first-order kinetic model of methane production developed by the EPA.[8] This model is known as the Landfill Air Emissions Estimation model, and can be accessed from the Office of Air Quality Planning and Standards Technology Transfer Network Website (OAQPS TTN Web) in the Clearinghouse for Inventories and Emission Factors (CHIEF) technical area (URL http://www.epa.gov/ttn/chief). The Landfill Air Emissions Estimation model equation is as follows:

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$$Q_{CH_4} = L_o R (e^{-kc} - e^{-kt}) \quad (1)$$

where:

Q_{CH_4}	=	Methane generation rate at time t, m^3/yr;
L_O	=	Methane generation potential, m^3 CH_4/Mg refuse;
R	=	Average annual refuse acceptance rate during active life, Mg/yr;
e	=	Base log, unitless;
k	=	Methane generation rate constant, yr^{-1};
c	=	Time since landfill closure, yrs (c = 0 for active landfills); and
t	=	Time since the initial refuse placement, yrs.

It should be noted that the model above was designed to estimate LFG generation and not LFG emissions to the atmosphere. Other fates may exist for the gas generated in a landfill, including capture and subsequent microbial degradation within the landfill's surface layer. Currently, there are no data that adequately address this fate. It is generally accepted that the bulk of the gas generated will be emitted through cracks or other openings in the landfill surface.

Site-specific landfill information is generally available for variables R, c, and t. When refuse acceptance rate information is scant or unknown, R can be determined by dividing the refuse in place by the age of the landfill. If a facility has documentation that a certain segment (cell) of a landfill received *only* nondegradable refuse, then the waste from this segment of the landfill can be excluded from the calculation of R. Nondegradable refuse includes concrete, brick, stone, glass, plaster, wallboard, piping, plastics, and metal objects. The average annual acceptance rate should only be estimated by this method when there is inadequate information available on the actual average acceptance rate. The time variable, t, includes the total number of years that the refuse has been in place (including the number of years that the landfill has accepted waste and, if applicable, has been closed).

Values for variables L_o and k must be estimated. Estimation of the potential CH_4 generation capacity of refuse (L_o) is generally treated as a function of the moisture and organic content of the refuse. Estimation of the CH_4 generation constant (k) is a function of a variety of factors, including moisture, pH, temperature, and other environmental factors, and landfill operating conditions. Specific CH_4 generation constants can be computed by the use of EPA Method 2E (40 CFR Part 60 Appendix A).

The Landfill Air Emission Estimation model includes both regulatory default values and recommended AP-42 default values for L_o and k. The regulatory defaults were developed for compliance purposes (NSPS/Emission Guideline). As a result, the model contains conservative L_o and k default values in order to protect human health, to encompass a wide range of landfills, and to encourage the use of site-specific data. Therefore, different L_o and k values may be appropriate in estimating landfill emissions for particular landfills and for use in an emissions inventory.

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Recommended AP-42 defaults include a k value of 0.04/yr for areas recieving 25 inches or more of rain per year. A default k of 0.02/yr should be used in drier areas (<25 inches/yr). An L_o value of 100 m^3/Mg (3,530 ft^3/ton) refuse is appropriate for most landfills. Although the recommended default k and L_o are based upon the best fit to 21 different landfills, the predicted methane emissions ranged from 38 to 492% of actual, and had a relative standard deviation of 0.85. It should be emphasized that in order to comply with the NSPS/Emission Guideline, the regulatory defaults for k and L_o must be applied as specified in the final rule.

When gas generation reaches steady state conditions, LFG consists of approximately 40 percent by volume CO_2, 55 percent CH_4, 5 percent N_2 (and other gases), and trace amounts of NMOCs. Therefore, the estimate derived for CH_4 generation using the Landfill Air Emissions Estimation model can also be used to represent CO_2 generation. Addition of the CH_4 and CO_2 emissions will yield an estimate of total landfill gas emissions. If site-specific information is available to suggest that the CH_4 content of landfill gas is not 55 percent, then the site-specific information should be used, and the CO_2 emission estimate should be adjusted accordingly.

Most of the NMOC emissions result from the volatilization of organic compounds contained in the landfilled waste. Small amounts may be created by biological processes and chemical reactions within the landfill. The current version of the Landfill Air Emissions Estimation model contains a proposed regulatory default value for total NMOC of 4,000 ppmv, expressed as hexane. However, available data show that there is a range of over 4,400 ppmv for total NMOC values from landfills. The proposed regulatory default value for NMOC concentration was developed for regulatory compliance purposes and to provide the most cost-effective default values on a national basis. For emissions inventory purposes, site-specific information should be taken into account when determining the total NMOC concentration. In the absence of site-specific information, a value of 2,420 ppmv as hexane is suggested for landfills known to have co-disposal of MSW and non-residential waste. If the landfill is known to contain only MSW or have very little organic commercial/industrial wastes, then a total NMOC value of 595 ppmv as hexane should be used. In addition, as with the landfill model defaults, the regulatory default value for NMOC content must be used in order to comply with the NSPS/Emission Guideline.

If a site-specific total pollutant concentration is available (i.e., as measured by EPA Reference Method 25C), it must be corrected for air infiltration which can occur by two different mechanisms: LFG sample dilution, and air intrusion into the landfill. These corrections require site-specific data for the LFG CH_4, CO_2, nitrogen (N_2), and oxygen (O_2) content. If the ratio of N_2 to O_2 is less than or equal to 4.0 (as found in ambient air), then the total pollutant

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concentration is adjusted for sample dilution by assuming that CO_2 and CH_4 are the primary (100 percent) constituents of landfill gas, and the following equation is used:

$$C_P \text{ (ppmv) (corrected for air infiltration)} = \frac{C_P \text{ (ppmv) } (1 \times 10^6)}{C_{CO_2} \text{ (ppmv)} + C_{CH_4} \text{ (ppmv)}} \quad (2)$$

where:

C_P	=	Concentration of pollutant P in landfill gas (i.e., NMOC as hexane), ppmv;
C_{CO_2}	=	CO_2 concentration in landfill gas, ppmv;
C_{CH_4}	=	CH_4 Concentration in landfill gas, ppmv; and
1×10^6	=	Constant used to correct concentration of P to units of ppmv.

If the ratio of N_2 to O_2 concentrations (i.e., C_{N_2}, C_{O_2}) is greater than 4.0, then the total pollutant concentration should be adjusted for air intrusion into the landfill by using equation 2 and adding the concentration of N_2 (i.e., C_{N_2}) to the denominator. Values for C_{CO_2}, C_{CH_4}, C_{N_2}, C_{O_2}, can usually be found in the source test report for the particular landfill along with the total pollutant concentration data.

To estimate emissions of NMOC or other landfill gas constituents, the following equation should be used:

$$Q_P = 1.82\ Q_{CH_4} * \frac{C_P}{(1 \times 10^6)} \quad (3)$$

where:

Q_P	=	Emission rate of pollutant P (i.e. NMOC), m^3/yr;
Q_{CH_4}	=	CH_4 generation rate, m^3/yr (from the Landfill Air Emissions Estimation model);
C_P	=	Concentration of P in landfill gas, ppmv; and
1.82	=	Multiplication factor (assumes that approximately 55 percent of landfill gas is CH_4 and 45 percent is CO_2, N_2, and other constituents).

Uncontrolled mass emissions per year of total NMOC (as hexane), CO_2, CH_4, and speciated organic and inorganic compounds can be estimated by the following equation:

$$UM_P = Q_P * \left[\frac{MW_P * 1 \text{ atm}}{(8.205 \times 10^{-5}\ m^3\text{-atm/gmol-}^\circ K)(1000 g/kg)(273 + T\ ^\circ K)}\right] \quad (4)$$

where:

UM_P	=	Uncontrolled mass emissions of pollutant P (i.e., NMOC), kg/yr;
MW_P	=	Molecular weight of P, g/gmol (i.e., 86.18 for NMOC as hexane);
Q_P	=	NMOC emission rate of P, m^3/yr; and
T	=	Temperature of landfill gas, °C.

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This equation assumes that the operating pressure of the system is approximately 1 atmosphere. If the temperature of the landfill gas is not known, a temperature of 25°C (77°F) is recommended.

Uncontrolled default concentrations of speciated organics along with some inorganic compounds are presented in Table 2.4-1. These default concentrations have already been corrected for air infiltration and can be used as input parameters to equation 3 or the Landfill Air Emission Estimation model for estimating speciated emissions from landfills when site-specific data are not available. An analysis of the data, based on the co-disposal history (with non-residential wastes) of the individual landfills from which the concentration data were derived, indicates that for benzene, NMOC, and toluene, there is a difference in the uncontrolled concentrations. Table 2.4-2 presents the corrected concentrations for benzene, NMOC, and toluene to use based on the site's co-disposal history.

It is important to note that the compounds listed in Tables 2.4-1 and 2.4-2 are not the only compounds likely to be present in LFG. The listed compounds are those that were identified through a review of the available literature. The reader should be aware that additional compounds are likely present, such as those associated with consumer or industrial products. Given this information, extreme caution should be exercised in the use of the default VOC weight fractions and concentrations given at the bottom of Table 2.4-2. These default VOC values are heavily influenced by the ethane content of the LFG. Available data have shown that there is a range of over 1,500 ppmv in LFG ethane content among landfills.

2.4.4.2 Controlled Emissions — Emissions from landfills are typically controlled by installing a gas collection system, and combusting the collected gas through the use of internal combustion engines, flares, or turbines. Gas collection systems are not 100 percent efficient in collecting landfill gas, so emissions of CH_4 and NMOC at a landfill with a gas recovery system still occur. To estimate controlled emissions of CH_4, NMOC, and other constituents in landfill gas, the collection efficiency of the system must first be estimated. Reported collection efficiencies typically range from 60 to 85 percent, with an average of 75 percent most commonly assumed. Higher collection efficiencies may be achieved at some sites (i.e., those engineered to control gas emissions). If site-specific collection efficiencies are available (i.e., through a comprehensive surface sampling program), then they should be used instead of the 75 percent average.

Controlled emission estimates also need to take into account the control efficiency of the control device. Control efficiencies based on test data for the combustion of CH_4, NMOC, and some speciated organics with differing control devices are presented in Table 2.4-3. Emissions from the control devices need to be added to the uncollected emissions to estimate total controlled emissions.

Controlled CH_4, NMOC, and speciated emissions can be calculated with equation 5. It is assumed that the landfill gas collection and control system operates 100 percent of the time. Minor durations of system downtime associated with routine maintenance and repair (i.e., 5 to 7 percent) will not appreciably effect emission estimates. The first term in equation 5 accounts for emissions from uncollected landfill gas, while the second term accounts for emissions of the pollutant that were collected but not combusted in the control or utilization device:

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$$CM_P = \left[UM_P * \left(1 - \frac{\eta_{col}}{100}\right)\right] + \left[UM_P * \frac{\eta_{col}}{100} * \left(1 - \frac{\eta_{cnt}}{100}\right)\right] \quad (5)$$

where:

CM_P	=	Controlled mass emissions of pollutant P, kg/yr;
UM_P	=	Uncontrolled mass emissions of P, kg/yr (from equation 4 or the Landfill Air Emissions Estimation Model);
η_{col}	=	Collection efficiency of the landfill gas collection system, percent; and
η_{cnt}	=	Control efficiency of the landfill gas control or utilization device, percent.

Emission factors for the secondary compounds, CO and NO_x, exiting the control device are presented in Tables 2.4-4 and 2.4-5. These emission factors should be used when equipment vendor guarantees are not available.

Controlled emissions of CO_2 and sulfur dioxide (SO_2) are best estimated using site-specific landfill gas constituent concentrations and mass balance methods.[68] If site-specific data are not available, the data in tables 2.4-1 through 2.4-3 can be used with the mass balance methods that follow.

Controlled CO_2 emissions include emissions from the CO_2 component of landfill gas (equivalent to uncontrolled emissions) and additional CO_2 formed during the combustion of landfill gas. The bulk of the CO_2 formed during landfill gas combustion comes from the combustion of the CH_4 fraction. Small quantities will be formed during the combustion of the NMOC fraction, however, this typically amounts to less than 1 percent of total CO_2 emissions by weight. Also, the formation of CO through incomplete combustion of landfill gas will result in small quantities of CO_2 not being formed. This contribution to the overall mass balance picture is also very small and does not have a significant impact on overall CO_2 emissions.[68]

The following equation which assumes a 100 percent combustion efficiency for CH_4 can be used to estimate CO_2 emissions from controlled landfills:

$$CM_{CO_2} = UM_{CO_2} + \left[UM_{CH_4} * \frac{\eta_{col}}{100} * 2.75\right] \quad (6)$$

where:

CM_{CO_2}	=	Controlled mass emissions of CO_2, kg/yr;
UM_{CO_2}	=	Uncontrolled mass emissions of CO_2, kg/yr (from equation 4 or the Landfill Air Emission Estimation Model);
UM_{CH_4}	=	Uncontrolled mass emissions of CH_4, kg/yr (from equation 4 on the Landfill Air Emission Estimation Model);
η_{col}	=	Efficiency of the landfill gas collection system, percent; and
2.75	=	Ratio of the molecular weight of CO_2 to the molecular weight of CH_4.

To prepare estimates of SO_2 emissions, data on the concentration of reduced sulfur compounds within the landfill gas are needed. The best way to prepare this estimate is with site-

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specific information on the total reduced sulfur content of the landfill gas. Often these data are expressed in ppmv as sulfur (S). Equations 3 and 4 should be used first to determine the uncontrolled mass emission rate of reduced sulfur compounds as sulfur. Then, the following equation can be used to estimate SO_2 emissions:

$$CM_{SO_2} = UM_S * \frac{\eta_{col}}{100} * 2.0 \qquad (7)$$

where:

CM_{SO_2}	=	Controlled mass emissions of SO_2, kg/yr;
UM_S	=	Uncontrolled mass emissions of reduced sulfur compounds as sulfur, kg/yr (from equations 3 and 4);
η_{col}	=	Efficiency of the landfill gas collection system, percent; and
2.0	=	Ratio of the molecular weight of SO_2 to the molecular weight of S.

The next best method to estimate SO_2 concentrations, if site-specific data for total reduced sulfur compounds as sulfur are not available, is to use site-specific data for speciated reduced sulfur compound concentrations. These data can be converted to ppmv as S with equation 8. After the total reduced sulfur as S has been obtained from equation 8, then equations 3, 4, and 7 can be used to derive SO_2 emissions.

$$C_S = \sum_{i=1}^{n} C_P * S_P \qquad (8)$$

where:

C_S	=	Concentration of total reduced sulfur compounds, ppmv as S (for use in equation 3);
C_P	=	Concentration of each reduced sulfur compound, ppmv;
S_P	=	Number of moles of S produced from the combustion of each reduced sulfur compound (i.e., 1 for sulfides, 2 for disulfides); and
n	=	Number of reduced sulfur compounds available for summation.

If no site-specific data are available, a value of 46.9 ppmv can be assumed for C_S (for use in equation 3). This value was obtained by using the default concentrations presented in Table 2.4-1 for reduced sulfur compounds and equation 8.

Hydrochloric acid [Hydrogen Chloride (HCl)] emissions are formed when chlorinated compounds in LFG are combusted in control equipment. The best methods to estimate emissions are mass balance methods that are analogous to those presented above for estimating SO_2 emissions. Hence, the best source of data to estimate HCl emissions is site-specific LFG data on total chloride [expressed in ppmv as the chloride ion (Cl^-)]. If these data are not available, then total chloride can be estimated from data on individual chlorinated species using equation 9 below. However, emission estimates may be underestimated, since not every chlorinated

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compound in the LFG will be represented in the lal ..tory report (i.e., only those that the analytical method specifies).

$$C_{Cl} = \sum_{i=1}^{n} C_P * Cl_P \qquad (9)$$

where:

C_{Cl}	=	Concentration of total chloride, ppmv as Cl^- (for use in equation 3);
C_P	=	Concentration of each chlorinated compound, ppmv;
Cl_P	=	Number of moles of Cl^- produced from the combustion of each chlorinated compound (i.e., 3 for 1,1,1-trichloroethane); and
n	=	Number of chlorinated comp. ..ds available for summation.

After the total chloride concentration (C_{Cl}) has been estimated, equations 3 and 4 should be used to determine the total uncontrolled mass emission rate of chlorinated compounds as chloride ion (UM_{Cl}). This value is then used in equation 10 below to derive HCl emission estimates:

$$CM_{HCl} = UM_{Cl} * \frac{\eta_{col}}{100} * 1.03 * \left(\frac{\eta_{cnt}}{100}\right) \qquad (10)$$

where:

CM_{HCl}	=	Controlled mass emissions of HCl, kg/yr;
UM_{Cl}	=	Uncontrolled mass emissions of chlorinated compounds as chloride, kg/yr (from equations 3 and 4);
η_{col}	=	Efficiency of the landfill gas collection system, percent;
1.03	=	Ratio of the molecular weight of HCl to the molecular weight of Cl^-; and
η_{cnt}	=	Control efficiency of the landfill gas control or utilization device, percent.

In estimating HCl emissions, it is assumed that all of the chloride ion from the combustion of chlorinated LFG constituents is converted to HCl. If an estimate of the control efficiency, η_{cnt}, is not available, then the high end of the control efficiency range for the equipment listed in Table 9 should be used. This assumption is recommended to assume that HCl emissions are not under-estimated.

If site-specific data on total chloride or speciated chlorinated compounds are not available, then a default value of 42.0 ppmv can be used for C_{Cl}. This value was derived from the default LFG constituent concentrations presented in Table 2.4-1. As mentioned above, use of this default may produce underestimates of HCl emissions since it is based only on those compounds for which analyses have been performed. The constituents listed in Table 2.4-1are likely not all of the chlorinated compounds present in LFG.

The reader is referred to Sections 11.2-1 (Unpaved Roads, SCC 50100401), and 11-2.4 (Heavy Construction Operations) of Volume I, and Section II-7 (Construction Equipment) of Volume II, of the AP-42 document for determination of associated fugitive dust and exhaust emissions from these emission sources at MSW landfills.

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2.4.5 Updates Since the Fifth Edition

The Fifth Edition was released in January 1995. Supplemnt D (8/98) is a major revision of the text and recommended emission factors conained in the section. The most significant revisions to this section since publication in the Fifth Edition are summarized below.

- The equations to calculate the CH_4, CO_2 and other constituents were simplified.
- The default L_0 and k were revised based upon an expanded base of gas generation data.
- The default ratio of CO_2 to CH_4 was revised based upon averages observed in available source test reports.
- The default concentrations of LFG constituents were revised based upon additional data.
- Additional control efficiencies were included and existing efficiencies were revised based upon additional emission test data.
- Revised and expanded the recommended emission factors for secondary compounds emitted from typical control devices.

Supplement E (11/98) includes correction in equation 10 and a very minor change in the molecular weights for 1,1,1-Trichloroethane (methyl chloroform), 1,1-Dichloroethane, 1,2-Dichloropropane and Trichloroethylene (trichloroethene) presented in Table 2.4-1 to agree with values presented in Perry's Handbook.

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Table 2.4-1. DEFAULT CONCENTRATIONS FOR LFG CONSTITUENTS[a]

(SCC 50100402, 50300603)

Compound	Molecular Weight	Default Concentration (ppmv)	Emission Factor Rating
1,1,1-Trichloroethane (methyl chloroform)[a]	133.41	0.48	B
1,1,2,2-Tetrachloroethane[a]	167.85	1.11	C
1,1-Dichloroethane (ethylidene dichloride)[a]	98.97	2.35	B
1,1-Dichloroethene (vinylidene chloride)[a]	96.94	0.20	B
1,2-Dichloroethane (ethylene dichloride)[a]	98.96	0.41	B
1,2-Dichloropropane (propylene dichloride)[a]	112.99	0.18	D
2-Propanol (isopropyl alcohol)	60.11	50.1	E
Acetone	58.08	7.01	B
Acrylonitrile[a]	53.06	6.33	D
Bromodichloromethane	163.83	3.13	C
Butane	58.12	5.03	C
Carbon disulfide[a]	76.13	0.58	C
Carbon monoxide[b]	28.01	141	E
Carbon tetrachloride[a]	153.84	0.004	B
Carbonyl sulfide[a]	60.07	0.49	D
Chlorobenzene[a]	112.56	0.25	C
Chlorodifluoromethane	86.47	1.30	C
Chloroethane (ethyl chloride)[a]	64.52	1.25	B
Chloroform[a]	119.39	0.03	B
Chloromethane	50.49	1.21	B
Dichlorobenzene[c]	147	0.21	E
Dichlorodifluoromethane	120.91	15.7	A
Dichlorofluoromethane	102.92	2.62	D
Dichloromethane (methylene chloride)[a]	84.94	14.3	A
Dimethyl sulfide (methyl sulfide)	62.13	7.82	C
Ethane	30.07	889	C
Ethanol	46.08	27.2	E
Ethyl mercaptan (ethanethiol)	62.13	2.28	D
Ethylbenzene[a]	106.16	4.61	B
Ethylene dibromide	187.88	0.001	E
Fluorotrichloromethane	137.38	0.76	B
Hexane[a]	86.18	6.57	B
Hydrogen sulfide	34.08	35.5	B
Mercury (total)[a,d]	200.61	2.92×10^{-4}	E

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Table 2.4-1. (Concluded)

Compound	Molecular Weight	Default Concentration (ppmv)	Emission Factor Rating
Methyl ethyl ketone[a]	72.11	7.09	A
Methyl isobutyl ketone[a]	100.16	1.87	B
Methyl mercaptan	48.11	2.49	C
Pentane	72.15	3.29	C
Perchloroethylene (tetrachloroethylene)[a]	165.83	3.73	B
Propane	44.09	11.1	B
t-1,2-dichloroethene	96.94	2.84	B
Trichloroethylene (trichloroethene)[a]	131.40	2.82	B
Vinyl chloride[a]	62.50	7.34	B
Xylenes[a]	106.16	12.1	B

NOTE: This is not an all-inclusive list of potential LFG constituents, only those for which test data were available at multiple sites. References 10-67. Source Classification Codes in parentheses.

[a] Hazardous Air Pollutants listed in Title III of the 1990 Clean Air Act Amendments.

[b] Carbon monoxide is not a typical constituent of LFG, but does exist in instances involving landfill (underground) combustion. Therefore, this default value should be used with caution. Of 18 sites where CO was measured, only 2 showed detectable levels of CO.

[c] Source tests did not indicate whether this compound was the para- or ortho- isomer. The para isomer is a Title III-listed HAP.

[d] No data were available to speciate total Hg into the elemental and organic forms.

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Table 2.4-2. DEFAULT CONCENTRATIONS OF BENZENE, NMOC, AND TOLUENE BASED ON WASTE DISPOSAL HISTORY[a]

(SCC 50100402, 50300603)

Pollutant	Molecular Weight	Default Concentration (ppmv)	Emission Factor Rating
Benzene[b]	78.11		
Co-disposal		11.1	D
No or Unknown co-disposal		1.91	B
NMOC (as hexane)[c]	86.18		
Co-disposal		2420	D
No or Unknown co-disposal		595	B
Toluene[b]	92.13		
Co-disposal		165	D
No or Unknown co-disposal		39.3	A

[a] References 10-54. Source Classification Codes in parentheses.
[b] Hazardous Air Pollutants listed in Title III of the 1990 Clean Air Act Amendments.
[c] For NSPS/Emission Guideline compliance purposes, the default concentration for NMOC as specified in the final rule must be used. For purposes not associated with NSPS/Emission Guideline compliance, the default VOC content at co-disposal sites = 85 percent by weight (2,060 ppmv as hexane); at No or Unknown sites = 39 percent by weight 235 ppmv as hexane).

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Table 2.4-3. CONTROL EFFICIENCIES FOR LFG CONSTITUENTS[a]

Control Device	Constituent[b]	Control Efficiency (%)		
		Typical	Range	Rating
Boiler/Steam Turbine (50100423)	NMOC	98.0	96-99+	D
	Halogenated Species	99.6	87-99+	D
	Non-Halogenated Species	99.8	67-99+	D
Flare[c] (50100410) (50300601)	NMOC	99.2	90-99+	B
	Halogenated Species	98.0	91-99+	C
	Non-Halogenated Species	99.7	38-99+	C
Gas Turbine (50100420)	NMOC	94.4	90-99+	E
	Halogenated Species	99.7	98-99+	E
	Non-Halogenated Species	98.2	97-99+	E
IC Engine (50100421)	NMOC	97.2	94-99+	E
	Halogenated Species	93.0	90-99+	E
	Non-Halogenated Species	86.1	25-99+	E

[a] References 10-67. Source Classification Codes in parentheses.
[b] Halogenated species are those containing atoms of chlorine, bromine, fluorine, or iodine. For any equipment, the control efficiency for mercury should be assumed to be 0. See section 2.4.4.2 for methods to estimate emissions of SO_2, CO_2, and HCl.
[c] Where information on equipment was given in the reference, test data were taken from enclosed flares. Control efficiencies are assumed to be equally representative of open flares.

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Table 2.4-4. (Metric Units) EMISSION FACTORS FOR SECONDARY COMPOUNDS EXITING CONTROL DEVICES[a]

Control Device	Pollutant[b]	kg/10^6 dscm Methane	Emission Factor Rating
Flare[c]	Nitrogen dioxide	650	C
(50100410)	Carbon monoxide	12,000	C
(50300601)	Particulate matter	270	D
IC Engine	Nitrogen dioxide	4,000	D
(50100421)	Carbon monoxide	7,500	C
	Particulate matter	770	E
Boiler/Steam Turbine[d]	Nitrogen dioxide	530	D
(50100423)	Carbon monoxide	90	E
	Particulate matter	130	D
Gas Turbine	Nitrogen dioxide	1,400	D
(50100420)	Carbon monoxide	3,600	E
	Particulate matter	350	E

[a] Source Classification Codes in parentheses. Divide kg/10^6 dscm by 16,700 to obtain kg/hr/dscmm.
[b] No data on PM size distributions were available, however for other gas-fired combustion sources, most of the particulate matter is less than 2.5 microns in diameter. Hence, this emission factor can be used to provide estimates of PM-10 or PM-2.5 emissions. See section 2.4.4.2 for methods to estimate CO_2, SO_2, and HCl.
[c] Where information on equipment was given in the reference, test data were taken from enclosed flares. Control efficiencies are assumed to be equally representative of open flares.
[d] All source tests were conducted on boilers, however emission factors should also be representative of steam turbines. Emission factors are representative of boilers equipped with low-NO_x burners and flue gas recirculation. No data were available for uncontrolled NO_x emissions.

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Table 2.4-5. (English Units) EMISSION RATES FOR SECONDARY COMPOUNDS EXITING CONTROL DEVICES[a]

Control Device	Pollutant[b]	lb/10^6 dscf Methane	Emission Factor Rating
Flare[c]	Nitrogen dioxide	40	C
(50100410)	Carbon monoxide	750	C
(50300601)	Particulate matter	17	D
IC Engine	Nitrogen dioxide	250	D
(50100421)	Carbon monoxide	470	C
	Particulate matter	48	E
Boiler/Steam Turbine[d]	Nitrogen dioxide	33	E
(50100423)	Carbon monoxide	5.7	E
	Particulate matter	8.2	E
Gas Turbine	Nitrogen dioxide	87	D
(50100420)	Carbon monoxide	230	D
	Particulate matter	22	E

[a] Source Classification Codes in parentheses. Divide lb/10^6 dscf by 16,700 to obtain lb/hr/dscfm.
[b] Based on data for other combustion sources, most of the particulate matter will be less than 2.5 microns in diameter. Hence, this emission rate can be used to provide estimates of PM-10 or PM-2.5 emissions. See section 2.4.4.2 for methods to estimate CO_2, SO_2, and HCl.
[c] Where information on equipment was given in the reference, test data were taken from enclosed flares. Control efficiencies are assumed to be equally representative of open flares.
[d] All source tests were conducted on boilers, however emission factors should also be representative of steam turbines. Emission factors are representative of boilers equipped with low-NO_x burners and flue gas recirculation. No data were available for uncontrolled NO_x emissions.

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Appendix E

New Source Review

NEW SOURCE REVIEW

This appendix briefly discusses New Source Review (NSR) and is divided into the following sections:

- Introduction
- Overview of the NSR Program
- The Pollution Control Project Exclusion
- PSD Significance Level for NMOC
- References
- Memo: Pollution Control Projects and New Source Review Applicability
- Memo: Classification of Emissions from Landfills for NSR Applicability Purposes
- Memo: Emissions from Landfills

[NOTE: The memos included in this appendix are replicas of the originals. New electronic copies were generated for posting the memos on the EPA TTN.]

Introduction

A landfill, like any other stationary source, may need to undergo new source review (NSR) preceding either its initial construction or its expansion (modification) of an existing site. Both the amount of air pollution that a landfill releases and the location of a landfill will help determine which type of NSR requirements will apply. This section describes the applicability of landfills to the various NSR requirements and explains how a landfill which takes steps to reduce the release of certain gases may qualify for an NSR exclusion as a pollution control project. It is important to note that a landfill should be evaluated for its applicability to NSR independently from its applicability to the relevant NSPS and Emission Guidelines.

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Compliance with the MSW Landfills Emission Guidelines will require the collection and reduction of NMOC emissions from larger existing MSW landfills. The reduction of NMOC emissions generally will be accomplished through the destruction of NMOC using a combustion device. This device may or may not include some type of energy recovery. Concurrent with the control of NMOC, these combustion devices generate emissions of other pollutants, such as nitrogen oxides (NO_x), sulfur dioxide (SO_2), and carbon monoxide (CO). (Typically, emissions of SO_2 are minimal from controlled MSW landfills and would rarely trigger any action.) These concurrent emission increases may trigger NSR regulatory requirements under Parts C or D of Title I of the Act.

Overview of the NSR Program

The NSR program requires a preconstruction review for any major new source or major modification. The type of preconstruction review required generally depends upon the attainment status of the area in which a source will construct or modify. In an area designated as attainment or unclassifiable for a particular criteria pollutant, the requirements under part C of title I of the Act, (prevention of significant deterioration (PSD) of air quality) will apply if the source is major for any regulated pollutant. In a nonattainment area, the requirements under part D of title I of the Act (nonattainment NSR) will apply if the source is major specifically for the nonattainment pollutant.

Regardless of the area designation, a source that does not emit major amounts of any pollutant must undergo review in accordance with a State's minor source permit program. If, however, an existing minor source expands in such a way that the expansion in itself would be considered major, then the expansion is regarded as a major source and will be required to undergo either PSD or nonattainment NSR according to the applicable area designation. Tables E-1 and E-2 will be helpful in understanding how the various NSR requirements apply to specific pollutants. It is not EPA's intent that this appendix provide a complete description of the applicable NSR programs. Instead, the reader should refer to the documents listed in the References section to gain a better understanding of these NSR programs and when one might apply to the source of interest.

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A MSW landfill located in an attainment area is considered to be a major PSD source if it has the potential to emit 250 tpy or more of any regulated pollutant (e.g., VOC, NOx or CO). If an existing major MSW landfill is modified, a PSD review is required if the potential emission increase from the modification is greater than the significance level established for that pollutant (for example, 40 tpy of NO_x in an attainment area). Once considered major, other pollutant emissions are also subject to review if the regulatory significance level for that pollutant will be exceeded. (See Table E-1.)

If PSD is triggered, the facility must complete a review for each pollutant for which emissions increase by more than its significance level. The review includes a control technology review and an analysis of the air quality impacts of the new or modified source. The required control level for sources in attainment areas is best available control technology (BACT). Refer to reference 1 for a discussion of this term. As part of the air quality analysis, the facility must also demonstrate that the proposed activity will not cause or contribute to a violation of any national ambient air quality standard (NAAQS) or PSD increment (in attainment areas), or adversely impact an air quality related value (AQRV) in a Class I area. To demonstrate that these values are not exceeded, the facility may have to conduct some emission modelling.

In a nonattainment area, major source status occurs when a MSW landfill would release at least 100 tpy of the pollutant for which the area is designated nonattainment. Table E-2 summarizes the emissions thresholds for relevant pollutants when determining whether an expansion to an existing landfill will be subject to nonattainment NSR. Any increase in emissions of a nonattainment pollutant for which the new source is major, or any significant increase of the nonattainment pollutant from an existing major source of the nonattainment pollutant must control to the lowest achievable emission rate (LAER) and must be offset by emission decreases from some other source.

Non-major (minor) landfills can also trigger either PSD or nonattainment NSR. That is, when an existing landfill would expand to such extent that the amount of any new pollutant released would equal or exceed the applicable major source threshold, then the expansion itself would be treated as a major source. (See Tables E-1 and E-2.) For example, in an attainment area, a modification to a minor source would need to increase potential emissions of any pollutant by at least 250 tpy before PSD is triggered. Tables E-1 and E-2 summarize the NO_x,

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CO, VOC, and NMOC increases that constitute a major modification in attainment and nonattainment areas. The tables present NO_x and CO because these are the pollutants most likely to increase significantly when combustion devices are installed to reduce NMOC emissions from landfills. (However, it should be noted that emissions of VOC, NMOC, SO_2, and particulate matter must also be assessed in determining whether a landfill or a modification to a landfill is major.) Refer to references 1 and 2 for a more complete discussion of how to determine whether NSR is triggered. Reference 2, an EPA memorandum on classification of landfill emissions for NSR purposes, is included in this appendix.

There is an exclusion under NSR that may be available to an existing landfill that would otherwise trigger NSR. This exclusion applies to existing sources undergoing a physical or operational change for the primary purpose of reducing one or more air pollutants subject to regulation under the Act (i.e., a pollution control project), even though some increase of another air pollutant may occur. A pollution control project (PCP) must be, on balance, "environmentally beneficial" to be eligible for the exclusion. While the source would still be required to go through a minor NSR process, an eligible source would not be required to conduct a BACT or LAER (control device) evaluation.

The following section discusses this potential exclusion from NSR; the exclusion is available only to eligible existing landfills installing gas collection and control systems. Several resources are available for assisting in emission estimation and the determination of the potential emission increases,[2,3,4,5] and are listed in the references section.

The Pollution Control Project (PCP) Exclusion

The following information is taken largely from EPA's July 1, 1994 guidance memorandum (attached) entitled, "Pollution Control Projects and New Source Review (NSR) Applicability."[6] Nothing in this section is intended to override any statement made in that memorandum; the memorandum remains the definitive guidance for this exclusion.

For several years, EPA has had a policy of excluding certain types of PCPs from the NSR requirements on a case-by-case basis. The exclusion allows states to exempt a PCP from major NSR if, as stated above, the PCP is, on balance, "environmentally beneficial." The guidance

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Table E-1. Attainment Area (PSD) Major Modification Levels for NO_x, CO, VOC, and Landfill NMOC Emissions

Pollutant[a]	Modifications to an Existing Minor Source are Considered Major if Emission Increases Equal or Exceed (in tpy)	Modifications to an Existing Major Source are Considered Major if Emission Increases Exceed (in tpy)
NO_X	250	40
CO	250	100
VOC	250	40
NMOC	250	50

[a]This table presents only NO_X, CO, VOC, and NMOC. The NSR prevention of significant deteriorations (PSD) rules also contain levels for SO_2 and PM/PM10.

Table E-2. Nonattainment Area Major Modification Levels for NO_x, CO, and VOC Emissions

Pollutant[a] and Nonattainment Area Status	Modifications to an Existing Minor Source are Considered Major if Emission Increases Equal or Exceed: (in tpy)	Modifications to an Existing Major Source are Considered Major if Emission Increases Exceed: (in tpy)[b]
NO_X and VOC		
- Marginal	100	40
- Moderate	100	40
- Serious	50	25[c]
- Severe	25	25[c]
- Extreme	10	0
CO		
- Moderate	100	100
- Serious	50	50

[a]This table presents only NO_X, VOC, and CO. The NSR rules also contain levels for SO_2 and PM/PM10. The NSR rules in nonattainment areas apply only to criteria pollutants, so do not include levels for landfill gas NMOC.
[b]The source must be a major source of the particular criteria pollutant which increases significantly.
[c]Applies to contemporaneous net emission increases over a 5-year period.

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memorandum states that "unless information regarding a specific case indicates otherwise," projects such as the addition of combustion devices to comply with this rule, "can be assumed, by their nature, to be environmentally beneficial." It should be noted that this exemption is still a case-by-case determination; the deciding authority for such an exemption is the state. Nevertheless, even though a landfill may avoid NSR because it qualifies for the PCP exclusion, any resulting emission increase could change the source's status for future applicability to NSR when additional changes are proposed.

The guidance provides additional safeguards for facilities that pass the "environmentally beneficial" test. No PCP can "cause or contribute" to a violation of a NAAQS, or a PSD increment, or adversely impact an AQRV in a class I area. (See reference 1 for a discussion of these values.)

In addition to ensuring that the project will not cause any violations of a NAAQS, PSD increment, or AQRV, the applicant must demonstrate that the increase in collateral emissions is minimized. Minimization does not mean that the permitting agency should require a full "BACT-type" review for--or prescribe add-on controls for--collateral emission increases. It is also not intended to impact the selection of the control device used to meet the NSPS or Emission Guidelines. Rather, it is intended to ensure that whatever device is selected to comply with the NSPS or Emission Guidelines is operated in such a manner as to minimize any collateral emission increase.

A landfill owner or operator wishing to apply for the PCP exclusion must obtain a determination from the applicable state that the project qualifies for this exemption. This includes a requirement for a public review of the proposed exemption (minor NSR, state applicability determination, or similar process). As part of this approval, the state may, in some cases, require some modelling to be conducted to demonstrate that none of the values discussed in the previous paragraph are violated. Any project excluded from major NSR under this exemption must still comply with all other applicable requirements under the Act (including minor source permitting requirements) and under the state Implementation Plan (SIP). In the case of nonattainment areas, the state or the source must provide offsetting emission reductions for any significant increase in a nonattainment pollutant from the PCP. Under the PCP guidance,

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a one-to-one offset ratio is considered sufficient for a PCP; however, states have discretion to require offset ratios greater than one-to-one.

PSD Significance Level for NMOC

The MSW Landfills NSPS and Emission Guidelines established "MSW landfill emissions" as a new classification of pollutants subject to regulation under the Act. Concurrent with promulgating the NSPS and Emission Guidelines, EPA established a PSD significance level of 50 tpy, measured as NMOC. Therefore, PSD review requirements now apply to existing MSW landfill major sources in attainment areas that undergo a modification resulting in increases in landfill gas emissions greater than the 50 tpy NMOC significance level. This level roughly corresponds to a VOC emission rate of 40 tpy, the PSD significance level for VOC.

Modified landfills below the 2.5 million Mg or 2.5 million m^3 design capacity exemption, which are not required by the Emission Guidelines to install controls, may exceed the PSD significance level for NMOC. In this case, the state will need to determine if controls should be installed for purposes of PSD compliance. In addition, NSR will be required if a modification of an existing landfill, which is a major source of VOC and is located in an ozone nonattainment area, increases VOC emissions by more than the levels shown in Table E-2.

References

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6. Memorandum. Seitz, John S., EPA Office of Air Quality Planning and Standards, to EPA Regions I through X Air Division Directors. Pollution Control Projects and New Source Review (NSR) Applicability. July 1, 1994.

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July 1, 1994

MEMORANDUM

SUBJECT: Pollution Control Projects and New Source Review (NSR) Applicability

FROM: John S. Seitz, Director
Office of Air Quality Planning and Standards (MD-10)

TO: Director, Air, Pesticides and Toxics Management Division, Regions I and IV
Director, Air and Waste Management Division, Region II
Director, Air, Radiation and Toxics Division, Region III
Director, Air and Radiation Division, Region V
Director, Air, Pesticides and Toxics Division, Region VI
Director, Air and Toxics Division, Regions VII, VIII, IX and X

This memorandum and attachment address issues involving the Environmental Protection Agency's (EPA's) NSR rules and guidance concerning the exclusion from major NSR of pollution control projects at existing sources. The attachment provides a full discussion of the issues and this policy, including illustrative examples.

For several years, EPA has had a policy of excluding certain pollution control projects from the NSR requirements of parts C and D of title I of the Clean Air Act (Act) on a case-by-case basis. In 1992, EPA adopted an explicit pollution control project exclusion for electric utility generating units [see 57 FR 32314 (the "WEPCO rule" or the "WEPCO rulemaking")]. At the time, EPA indicated that it would, in a subsequent rulemaking, consider adopting a formal pollution control project exclusion for other source categories [see 57 FR 32332]. In the interim, EPA stated that individual pollution control projects involving source categories other than utilities could continue to be excluded from NSR by permitting authorities on a case-by-case basis [see 57 FR at 32320]. At this time, EPA expects to complete a rulemaking on a pollution control project exclusion for other source categories in early 1996. This memorandum and attachment provide interim guidance for permitting authorities on the approvability of these projects pending EPA's final action on a formal regulatory exclusion. The attachment to this memorandum

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outlines in greater detail the type of projects that may qualify for a conditional exclusion from NSR as a pollution control project, the safeguards that are to be met, and the procedural steps that permitting authorities should follow in issuing an exclusion. Projects that do not meet these safeguards and procedural steps do not qualify for an exclusion from NSR under this policy. Pollution control projects potentially eligible for an exclusion (provided all applicable safeguards are met) include the installation of conventional or innovative emissions control equipment and projects undertaken to accommodate switching to an inherently less-polluting fuel, such as natural gas. Under this guidance, States may also exclude as pollution control projects some material and process changes (e.g., the switch to a less polluting coating, solvent, or refrigerant) and some other types of pollution prevention projects undertaken to reduce emissions of air pollutants subject to regulation under the Act.

The replacement of an existing emissions unit with a newer or different one (albeit more efficient and less polluting) or the reconstruction of an existing emissions unit does not qualify as a pollution control project. Furthermore, this guidance only applies to physical or operational changes whose primary function is the reduction of air pollutants subject to regulation under the Act at existing major sources. This policy does not apply to air pollution controls and emissions associated with a proposed new source. Similarly, the fabrication, manufacture or production of pollution control/prevention equipment and inherently less-polluting fuels or raw materials are not pollution control projects under this policy (e.g., a physical or operational change for the purpose of producing reformulated gasoline at a refinery is not a pollution control project).

It is EPA's experience that many bona fide pollution control projects are not subject to major NSR requirements for the simple reason that they result in a reduction in annual emissions at the source. In this way, these pollution control projects are outside major NSR coverage in accordance with the general rules for determining applicability of NSR to modifications at existing sources. However, some pollution control projects could result in significant potential or actual increases of some pollutants. These latter projects comprise the subcategory of pollution control projects that can benefit from this guidance.

A pollution control project must be, on balance, "environmentally beneficial" to be eligible for an exclusion. Further, an environmentally-beneficial pollution control project may be excluded from otherwise applicable major NSR requirements only under conditions that ensure that the project will not cause or contribute to a violation of a national ambient air quality standard (NAAQS), prevention of significant deterioration (PSD) increment, or adversely affect visibility or other air quality related value (AQRV). In order to assure that air quality concerns with these projects are adequately addressed, there are

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two substantive and two procedural safeguards which are to be followed by permitting authorities reviewing projects proposed for exclusion.

First, the permitting authority must determine that the proposed pollution control project, after consideration of the reduction in the targeted pollutant and any collateral effects, will be environmentally beneficial. Second, nothing in this guidance authorizes any pollution control project which would cause or contribute to a violation of a NAAQS, or PSD increment, or adversely impact an AQRV in a class I area. Consequently, in addition to this "environmentally-beneficial" standard, the permitting authority must ensure that adverse collateral environmental impacts from the project are identified, minimized, and, where appropriate, mitigated. For example, the source or the State must secure offsetting reductions in the case of a project which will result in a significant increase in a nonattainment pollutant. Where a significant collateral increase in actual emissions is expected to result from a pollution control project, the permitting authority must also assess whether the increase could adversely affect any national ambient air quality standard, PSD increment, or class I AQRV.

In addition to these substantive safeguards, EPA is specifying two procedural safeguards which are to be followed. First, since the exclusion under this interim guidance is only available on a case-by-case basis, sources seeking exclusion from major NSR requirements prior to the forthcoming EPA rulemaking on a pollution control project exclusion must, before beginning construction, obtain a determination by the permitting authority that a proposed project qualifies for an exclusion from major NSR requirements as a pollution control project. Second, in considering this request, the permitting authority must afford the public an opportunity to review and comment on the source's application for this exclusion. It is also important to note that any project excluded from major new source review as a pollution control project must still comply with all otherwise applicable requirements under the Act and the State implementation plan (SIP), including minor source permitting.

This guidance document does not supersede existing Federal or State regulations or approved SIP's. The policies set out in this memorandum and attachment are intended as guidance to be applied only prospectively (including those projects currently under evaluation for an exclusion) during the interim period until EPA takes action to revise its NSR rules, and do not represent final Agency action. This policy statement is not ripe for judicial review. Moreover, it is not intended, nor can it be relied upon, to create any rights enforceable by any party in litigation with the United States. Agency officials may decide to follow the guidance provided in this memorandum, or to act at variance with the guidance, based on an analysis of specific circumstances. The EPA also may change this guidance at any time

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without public notice. The EPA presently intends to address the matters discussed in this document in a forthcoming NSR rulemaking regarding proposed changes to the program resulting from the NSR Reform process and will take comment on these matters as part of that rulemaking.

As noted above, a detailed discussion of the types of projects potentially eligible for an exclusion from major NSR as a pollution control project, as well as the safeguards such projects must meet to qualify for the exclusion, is contained in the attachment to this memorandum. The Regional Offices should send this memorandum with the attachment to States within their jurisdiction. Questions concerning specific issues and cases should be directed to the appropriate EPA Regional Office. Regional Office staff may contact David Solomon, Chief, New Source Review Section, at (919) 541-5375, if they have any questions.

Attachment

cc: Air Branch Chief, Regions I-X
NSR Reform Subcommittee Members

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Attachment

GUIDANCE ON EXCLUDING POLLUTION CONTROL PROJECTS FROM MAJOR NEW SOURCE REVIEW (NSR)

I. Purpose

The Environmental Protection Agency (EPA) presently expects to complete a rulemaking on an exclusion from major NSR for pollution control projects by early 1996. In the interim, certain types of projects (involving source categories other than utilities) may qualify on a case-by-case basis for an exclusion from major NSR as pollution control projects. Prior to EPA's final action on a regulatory exclusion, this attachment provides interim guidance for permitting authorities on the types of projects that may qualify on a case-by-case basis from major NSR as pollution control projects, including the substantive and procedural safeguards which apply.

II. Background

The NSR provisions of part C [prevention of significant deterioration (PSD)] and part D (nonattainment requirements) of title I of the Clean Air Act (Act) apply to both the construction of major new sources and the modification of existing major sources.[1] The modification provisions of the NSR programs in parts C and D are based on the broad definition of modification in section 111(a)(4) of the Act. That section contemplates a two-step test for determining whether activities at an existing major facility constitute a modification subject to new source requirements. In the first step, the reviewing authority determines whether a physical or operational change will occur. In the second step, the question is whether the physical or operational change will result in any increase in emissions of any regulated pollutant.

The definition of physical or operational change in section 111(a)(4) could, standing alone, encompass the most mundane activities at an industrial facility (even the repair or replacement of a single leaky pipe, or a insignificant change in the way that pipe is utilized). However, EPA has recognized that Congress did not intend to make every activity at a source subject to new source requirements under parts C and D. As a result, EPA has by regulation limited the reach of the modification provisions of parts C and D to only major modifications. Under NSR, a "major modification" is generally a physical change or change in the method of operation of a major stationary source which would result in a significant net

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[1]The EPA's NSR regulations for nonattainment areas are set forth at 40 CFR 51.165, 52.24 and part 51, Appendix S. The PSD program is set forth in 40 CFR 52.21 and 51.166.

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emissions increase in the emissions of any regulated pollutant [see, e.g., 40 CFR 52.21(b)(2)(i)]. A "net emissions increase" is defined as the increase in "actual emissions" from the particular physical or operational change together with any other contemporaneous increases or decreases in actual emissions [see, e.g., 40 CFR 52.21(b)(3)(i)]. In order to trigger major new source review, the net emissions increase must exceed specified "significance" levels [see, e.g., 40 CFR 52.21(b)(2)(i) and 40 CFR 52.21(b)(23)]. The EPA has also adopted common-sense exclusions from the "physical or operational change" component of the definition of "major modification." For example, EPA's regulations contain exclusions for routine maintenance, repair, and replacement; for certain increases in the hours of operation or in the production rate; and for certain types of fuel switches [see, e.g., 40 CFR 52.21(b)(2)(iii)].

In the 1992 "WEPCO" rulemaking [57 FR 32314], EPA amended its PSD and nonattainment NSR regulations as they pertain to utilities by adding certain pollution control projects to the list of activities excluded from the definition of physical or operational changes. In taking that action, EPA stated it was largely formalizing an existing policy under which it had been excluding individual pollution control projects where it was found that the project "would be environmentally beneficial, taking into account ambient air quality" [57 FR at 32320; see also id., n. 15].[2]

The EPA has provided exclusions for pollution control projects in the form of "no action assurances" prior to November 15, 1990 and nonapplicability determinations based on Act changes as of November 15, 1990 (1990 Amendments). Generally, these exclusions addressed clean coal technology projects and fuel switches at electric utilities.

Because the WEPCO rulemaking was directed at the utility industry which faced "massive industry-wide undertakings of pollution control projects" to comply with the acid rain provisions of the Act [57 FR 32314], EPA limited the types of projects eligible for the exclusion to add-on controls and fuel switches at utilities. Thus, pollution control projects under the WEPCO rule are defined as:

> any activity or project undertaken at an existing electric utility steam generating unit for purposes of reducing emissions from such unit. Such activities or projects are <u>limited to</u>:

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[2]This guidance pertains only to source categories other than electric utilities, and EPA does not intend for this guidance to affect the WEPCO rulemaking in any way.

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> (A) The installation of conventional or innovative pollution control technology, including but not limited to advanced flue gas desulfurization, sorbent injection for sulfur dioxide (SO_2) and nitrogen oxides (NO_x) controls and electrostatic precipitators;
>
> (B) An activity or project to accommodate switching to a fuel which is less polluting than the fuel in use prior to the activity or project . . .

[40 CFR 51.165(a)(1)(xxv) (emphasis added)]. The definition also includes certain clean coal technology demonstration projects. Id.

The EPA built two safeguards into the exclusion in the rulemaking. First, a project that meets the definition of pollution control project will not qualify for the exclusion wh e the "reviewing authority determines that (the proposed project) renders the unit less environmentally beneficial . . ." [see, e.g., 51.165(a)(1)(v)(C)(8)]. In the WEPCO rule, EPA did not provide any specific definition of the environmentally-beneficial standard, although it did indicate that the pollution control project provision "provides for a case-by-case assessment of the pollution control project's net emissions and overall impact on the environment" [57 FR 32321]. This provision is buttressed by a second safeguard that directs permitting authorities to evaluate the air quality impacts of pollution control projects that could--through collateral emissions increases or changes in utilization patterns--adversely impact local air quality [see 57 FR 32322]. This provision generally authorizes, as appropriate, a permitting authority to require modelling of emissions increases associated with a pollution control project. Id. More fundamentally, it explicitly states that no pollution control project under any circumstances may cause or contribute to violation of a national ambient air

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quality standard (NAAQS), PSD increment, or air quality related value (AQRV) in a class I area. Id.[3]

As noted, the WEPCO rulemaking was expressly limited to existing electric utility steam generating units [see, e.g., 40 CFR 51.165(a)(1)(v)(C)(8) and 51.165(a)(1)(xx)]. The EPA limited the rulemaking to utilities because of the impending acid rain requirements under title IV of the Act, EPA's extensive experience with new source applicability issues for electric utilities, the general similarity of equipment, and the public availability of utility operating projections. The EPA indicated it would consider adopting a formal NSR pollution control project exclusion for other source categories as part of a separate NSR rulemaking. The rulemaking in question is now expected to be finalized by early 1996. On the other hand, the WEPCO rulemaking also noted that EPA's existing policy was, and would continue to be, to allow permitting authorities to exclude pollution control projects in other source categories on a case-by-case basis.

III. Case-By-Case Pollution Control Project Determinations

The following sections describe the type of projects that may be considered by permitting authorities for exclusion from major NSR as pollution control projects and two safeguards that permitting authorities are to use in evaluating such projects--the environmentally-beneficial test and an air quality impact assessment. To a large extent, these requirements are drawn from the WEPCO rulemaking. However, because the WEPCO rule was designed for a single source category, electric utilities, it cannot and does not serve as a complete template for this guidance. Therefore, the following descriptions expand upon the WEPCO rule in the scope of qualifying projects and in the specific elements inherent in the safeguards. These changes reflect the far more complicated task of evaluating pollution

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[3]The WEPCO rule refers specifically to "visibility limitation" rather than "air quality related values." However, EPA clearly stated in the preamble to the final rule that permitting agencies have the authority to "solicit the views of others in taking any other appropriate remedial steps deemed necessary to protect class I areas. . .. The EPA emphasizes that all environmental impacts, including those on class I areas, can be considered. . .." [57 FR 32322]. Further, the statutory protections in section 165(d) plainly are intended to protect against any "adverse impact on the AQRV of such [class I] lands (including visibility)." Based on this statutory provision, EPA believes that the proper focus of any air quality assessment for a pollution control project should be on visibility and any other relevant AQRV's for any class I areas that may be affected by the proposed project. Permitting authorities should notify Federal Land Managers where appropriate concerning pollution control projects which may adversely affect AQRV's in class I areas.

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control projects at a wide variety of sources facing a myriad of Federal, State, and local clean air requirements.

Since the safeguards are an integral component of the exclusion, States must have the authority to impose the safeguards in approving an exclusion from major NSR under this policy. Thus, State or local permitting authorities in order to use this policy should provide statements to EPA describing and affirming the basis for its authority to impose these safeguards absent major NSR. Sources that obtain exclusions from permitting authorities that have not provided this affirmation of authority are at risk in seeking to rely on the exclusion issued by the permitting agency, because EPA may subsequently determine that the project does not qualify as a pollution control project under this policy.

A. Types of Projects Covered

1. Add-On Controls and Fuel Switches

In the WEPCO rulemaking, EPA found that both add-on emissions control projects and fuel switches to less-polluting fuels could be considered to be pollution control projects. For the purposes of today's guidance, EPA affirms that these types of projects are appropriate candidates for a case-by-case exclusion as well. These types of projects include:

- the installation of conventional and advanced flue gas desulfurization and sorbent injection for SO_2;

- electrostatic precipitators, baghouses, high efficiency multiclones, and scrubbers for particulate or other pollutants;

- flue gas recirculation, low-NO_x burners, selective non-catalytic reduction and selective catalytic reduction for NO_x; and

- regenerative thermal oxidizers (RTO), catalytic oxidizers, condensers, thermal incinerators, flares and carbon adsorbers for volatile organic compounds (VOC) and toxic air pollutants.

Projects undertaken to accommodate switching to an inherently less-polluting fuel such as natural gas can also qualify for the exclusion. Any activity that is necessary to accommodate switching to a inherently less-polluting fuel is considered to be part of the pollution control project. In some instances, where the emissions unit's capability would otherwise be impaired as a result of the fuel switch, this may involve certain necessary changes to the pollution generating equipment (e.g., boiler) in order to maintain the normal operating capability of the unit at the time of the project.

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2. Pollution Prevention Projects

It is EPA's policy to promote pollution prevention approaches and to remove regulatory barriers to sources seeking to develop and implement pollution prevention solutions to the extent allowed under the Act. For this reason, permitting authorities may also apply this exclusion to switches to inherently less-polluting raw materials and processes and certain other types of "pollution prevention" projects.[4] For instance, many VOC users will be making switches to water-based or powder-paint application systems as a strategy for meeting reasonably available control technology (RACT) or switching to a non-toxic VOC to comply with maximum achievable control technology (MACT) requirements.

Accordingly, under today's guidance, permitting authorities may consider excluding raw material substitutions, process changes and other pollution prevention strategies where the pollution control aspects of the project are clearly evident and will result in substantial emissions reductions per unit of output for one or more pollutants. In judging whether a pollution prevention project can be considered for exclusion as a pollution control project, permitting authorities may also consider as a relevant factor whether a project is being undertaken to bring a source into compliance with a MACT, RACT, or other Act requirement.

Although EPA is supportive of pollution control and prevention projects and strategies, special care must be taken in classifying a project as a pollution control project and in evaluating a project under a pollution control project exclusion. Virtually every modernization or upgrade project at an existing industrial facility which reduces inputs and lowers unit costs has the concurrent effect of lowering an emissions rate per unit of fuel, raw material or output. Nevertheless, it is clear that these major capital investments in industrial equipment are the very types of projects that Congress intended to address in the new source modification provisions [see Wisconsin Electric Power Co. v. Reilly, 893 F.2d 901, 907-10 (7th Cir. 1990) (rejecting contention that utility life extension project was not a physical

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[4]For purposes of this guidance, pollution prevention means any activity that through process changes, product reformulation or redesign, or substitution of less polluting raw materials, eliminates or reduces the release of air pollutants and other pollutants to the environment (including fugitive emissions) prior to recycling, treatment, or disposal; it does not mean recycling (other than certain "in-process recycling" practices), energy recovery, treatment, or disposal [see Pollution Prevention Act of 1990 section 6602(b) and section 6603(5)(A) and (B); see also "EPA Definition of 'Pollution Prevention,'" memorandum from F. Henry Habicht II, May 28, 1992].

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or operational change); Puerto Rican Cement Co., Inc. v. EPA, 889 F.2d 292, 296-98 (1st Cir. 1989) (NSR applies to modernization project that decreases emissions per unit of output, but increases economic efficiency such that utilization may increase and result in net increase in actual emissions)]. Likewise, the replacement of an existing emissions unit with a newer or different one (albeit more efficient and less polluting) or the reconstruction of an existing emissions unit would not qualify as a pollution control project. Adopting a policy that automatically excludes from NSR any project that, while lowering operating costs or improving performance, coincidentally lowers a unit's emissions rate, would improperly exclude almost all modifications to existing emissions units, including those that are likely to increase utilization and therefore result in overall higher levels of emissions.

In order to limit this exclusion to the subset of pollution prevention projects that will in fact lower annual emissions at a source, permitting authorities should not exclude as pollution control projects any pollution prevention project that can be reasonably expected to result in an increase in the utilization of the affected emissions unit(s). For example, projects which significantly increase capacity, decrease production costs, or improve product marketability can be expected to affect utilization patterns. With these changes, the environment may or may not see a reduction in overall source emissions; it depends on the source's operations after the change, which cannot be predicted with any certainty.[5] This is not to say that these types of projects are necessarily subject to major NSR requirements, only that they should not be excluded as pollution control projects under this guidance. The EPA may consider different approaches to excluding pollution prevention projects from major NSR requirements in the upcoming NSR rulemaking. Under this guidance, however, permitting authorities should carefully review proposed pollution prevention projects to evaluate whether utilization of the source will increase as a result of the project.

Furthermore, permitting authorities should have the authority to monitor utilization of an affected emissions unit or source for a reasonable period of time subsequent to the project to verify what effect, if any, the project has on utilization. In cases where the project has clearly caused an increase in utilization, the permitting authority may need to reevaluate the

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[5]This is in marked contrast to the addition of pollution control equipment which typically does not, in EPA's experience, result in any increase in the source's utilization of the emission unit in question. In the few instances where this presumption is not true, the safeguards discussed in the next section should provide adequate environmental protections for these additions of pollution control equipment.

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basis for the original exclusion to verify that an exclusion is still appropriate and to ensure that all applicable safeguards are being met.

B. Safeguards

The following safeguards are necessary to assure that projects being considered for an exclusion qualify as environmentally beneficial pollution control projects and do not have air quality impacts which would preclude the exclusion. Consequently, a project that does not meet these safeguards does not qualify for an exclusion under this policy.

1. Environmentally-Beneficial Test

Projects that meet the definition of a pollution control project outlined above may nonetheless cause collateral emissions increases or have other adverse impacts. For instance, a large VOC incinerator, while substantially eliminating VOC emissions, may generate sizeable NO_x emissions well in excess of significance levels. To protect against these sorts of problems, EPA in the WEPCO rule provided for an assessment of the overall environmental impact of a project and the specific impact, if any, on air quality. The EPA believes that this safeguard is appropriate in this policy as well.

Unless information regarding a specific case indicates otherwise, the types of pollution control projects listed in III. A. 1. above can be presumed, by their nature, to be environmentally beneficial. This presumption arises from EPA's experience that historically these are the very types of pollution controls applied to new and modified emissions units. The presumption does not apply, however, where there is reason to believe that 1) the controls will not be designed, operated or maintained in a manner consistent with standard and reasonable practices; or 2) collateral emissions increases have not been adequately addressed as discussed below.

In making a determination as to whether a project is environmentally beneficial, the permitting authority must consider the types and quantity of air pollutants emitted before and after the project, as well as other relevant environmental factors. While because of the case-by-case nature of projects it is not possible to list all factors which should be considered in any particular case, several concerns can be noted.

First, pollution control projects which result in an increase in non-targeted pollutants should be reviewed to determine that the collateral increase has been minimized and will not result in environmental harm. Minimization here does not mean that the permitting agency should conduct a BACT-type review or necessarily prescribe add-on control equipment to

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treat the collateral increase. Rather, minimization means that, within the physical configuration and operational standards usually associated with such a control device or strategy, the source has taken reasonable measures to keep any collateral increase to a minimum. For instance, the permitting authority could require that a low-NO_x burner project be subject to temperature and other appropriate combustion standards so that carbon monoxide (CO) emissions are kept to a minimum, but would not review the project for a CO catalyst or other add-on type options. In addition, a State's RACT or MACT rule may have explicitly considered measures for minimizing a collateral increase for a class or category of pollution control projects and requires a standard of best practices to minimize such collateral increases. In such cases, the need to minimize collateral increase from the covered class or category of pollution control projects can be presumed to have been adequately addressed in the rule.

In addition, a project which would result in an unacceptable increased risk due to the release of air toxics should not be considered environmentally beneficial. It is EPA's experience, however, that most projects undertaken to reduce emissions, especially add-on controls and fuel switches, result in concurrent reductions in air toxics. The EPA expects that many pollution control projects seeking an exclusion under this guidance will be for the purpose of complying with MACT requirements for reductions in air toxics. Consequently, unless there is reason to believe otherwise, permitting agencies may presume that such projects by their nature will result in reduced risks from air toxics.

2. Additional Air Quality Impacts Assessments

(a) General

Nothing in the Act or EPA's implementing regulations would allow a permitting authority to approve a pollution control project resulting in an emissions increase that would cause or contribute to a violation of a NAAQS or PSD increment, or adversely impact visibility or other AQRV in a class I area [see, e.g., Act sections 110(a)(2)(C), 165, 169A(b), 173]. Accordingly, this guidance is not intended to allow any project to violate any of these air quality standards.

As discussed above, it is possible that a pollution control project--either through an increase in an emissions rate of a collateral pollutant or through a change in utilization--will cause an increase in actual emissions, which in turn could cause or contribute to a violation of a NAAQS or increment or adversely impact AQRV's. For this reason, in the WEPCO rule the EPA required sources to address whenever 1) the proposed change would result in a significant net increase in actual emissions of any criteria pollutant over levels used for that source in the

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most recent air quality impact analysis; and 2) the permitting authority has reason to believe that such an increase would cause or contribute to a violation of a NAAQS, increment or visibility limitation. If an air quality impact analysis indicates that the increase in emissions will cause or contribute to a violation of any ambient standard, PSD increment, or AQRV, the pollution control exclusion does not apply.

The EPA believes that this safeguard needs to be applied here as well. Thus, where a pollution control project will result in a significant increase in emissions and that increased level has not been previously analyzed for its air quality impact and raises the possibility of a NAAQS, increment, or AQRV violation, the permitting authority is to require the source to provide an air quality analysis sufficient to demonstrate the impact of the project. The EPA will not necessarily require that the increase be modeled, but the source must provide sufficient data to satisfy the permitting authority that the new levels of emissions will not cause a NAAQS or increment violation and will not adversely impact the AQRV's of nearby potentially affected class I areas.

In the case of nonattainment areas, the State or the source must provide offsetting emissions reductions for any significant increase in a nonattainment pollutant from the pollution control project. In other words, if a significant collateral increase of a nonattainment pollutant resulting from a pollution control project is not offset on at least a one-to-one ratio then the pollution control project would not qualify as environmentally beneficial.[6] However, rather than having to apply offsets on a case-by-case basis, States may consider adopting (as part of their attainment plans) specific control measures or strategies for the purpose of generating offsets to mitigate the projected collateral emissions increases from a class or category of pollution control projects.

(b) Determination of Increase in Emissions

The question of whether a proposed project will result in an emissions increase over pre-modification levels of actual emissions is both complicated and contentious. It is a question that has been debated by the New Source Review Reform Subcommittee of the Clean Air Act Advisory Committee and is expected to be revisited by EPA in the same upcoming rulemaking that will consider adopting a pollution control project exclusion. In the interim, EPA is adopting a simplified approach

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[6]Regardless of the severity of the classification of the nonattainment area, a one-to-one offset ratio will be considered sufficient under this policy to mitigate a collateral increase from a pollution control project. States may, however, require offset ratios that are greater than one-to-one.

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to determining whether a pollution control project will result in increased emissions.

The approach in this policy is premised on the fact that EPA does not expect the vast majority of these pollution control projects to change established utilization patterns at the source. As discussed in the previous section, it is EPA's experience that add-on controls do not impact utilization, and pollution prevention projects that could increase utilization may not be excluded under this guidance. Therefore, in most cases it will be very easy to calculate the emissions after the change: the product of the new emissions rate times the existing utilization rate. In the case of a pollution control project that collaterally increases a non-targeted pollutant, the actual increase (calculated using the new emissions rate and current utilization pattern) would need to be analyzed to determine its air quality impact.

The permitting authority may presume that projects meeting the definition outlined in section III(A)(1) will not change utilization patterns. However, the permitting authority is to reject this presumption where there is reason to believe that the project will result in debottlenecking, loadshifting to take advantage of the control equipment, or other meaningful increase in the use of the unit above current levels. Where the project will increase utilization and emissions, the associated emissions increases are calculated based on the post-modification potential to emit of the unit considering the application of the proposed controls. In such cases the permitting agency should consider the projected increase in emissions as collateral to the project and determine whether, notwithstanding the emissions increases, the project is still environmentally beneficial and meets all applicable safeguards.

In certain limited circumstances, a permitting agency may take action to impose federally-enforceable limits on the magnitude of a projected collateral emissions increase to ensure that all safeguards are met. For example, where the data used to assess a projected collateral emissions increase is questionable and there is reason to believe that emissions in excess of the projected increase would violate an applicable air quality standard or significantly exceed the quantity of offsets provided, restrictions on the magnitude of the collateral increase may be necessary to ensure compliance with the applicable safeguards.

IV. Procedural Safeguards

Because EPA has not yet promulgated regulations governing a generally applicable pollution control project exclusion from major NSR (other than for electric utilities), permitting authorities must consider and approve requests for an exclusion on a case-by-case basis, and the exclusion is not self-executing.

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Instead, sources must receive case-by-case approval from the permitting authority pursuant to a minor NSR permitting process, State nonapplicability determination or similar process. [Nothing in this guidance voids or creates an exclusion from any applicable minor source preconstruction review requirement in any SIP that has been approved pursuant to section 110(a)(2)(C) and 40 CFR 51.160-164.] This process should also provide that the application for the exclusion and the permitting agency's proposed decision thereon be subject to public notice and the opportunity for public and EPA written comment. In those limited cases where the applicable SIP already exempts a class or category of pollution controls project from the minor source permitting public notice and comment requirements, and where no collateral increases are expected (e.g., the installation of a baghouse) and all otherwise applicable environmental safeguards are complied with, public notice and comment need not be provided for such projects. However, even in such circumstances, the permitting agency should provide advance notice to EPA when it applies this policy to provide an exclusion. For standard-wide applications to groups of sources (e.g., RACT or MACT), the notice may be provided to EPA at the time the permitting authority intends to issue a pollution control exclusion for the class or category of sources and thereafter notice need not be given to EPA on an individual basis for sources within the noticed group.

V. Emission Reduction Credits

In general, certain pollution control projects which have been approved for an exclusion from major NSR may result in emission reductions which can serve as NSR offsets or netting credits. All or part of the emission reductions equal to the difference between the pre-modification actual and post-modification potential emissions for the decreased pollutant may serve as credits provided that 1) the project will not result in a significant collateral increase in actual emissions of any criteria pollutant, 2) the project is still considered environmentally beneficial, and 3) all otherwise applicable criteria for the crediting of such reductions are met (e.g., quantifiable, surplus, permanent, and enforceable). Where an excluded pollution control project results in a significant collateral increase of a criteria pollutant, emissions reduction credits from the pollution control project for the controlled pollutant may still be granted provided, in addition to 2) and 3) above, the actual collateral increase is reduced below the applicable significance level, either through contemporaneous reductions at the source or external offsets. However, neither the exclusion from major NSR nor any credit (full or partial) for emission reductions should be granted by the permitting authority where the type or amount of the emissions increase which would result from the use of such credits would lessen the environmental benefit associated with the pollution control

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project to the point where the project would not have initially qualified for an exclusion.

IV. Illustrative Examples

The following examples illustrate some of the guiding principles and safeguards discussed above in reviewing proposed pollution control projects for an exclusion from major NSR.

Example 1

PROJECT DESCRIPTION: A chemical manufacturing facility in an attainment area for all pollutants is proposing to install a RTO to reduce VOC emissions (including emissions of some hazardous pollutants) at the plant by about 3000 tons per year (tpy). The emissions reductions from the RTO are currently voluntary, but may be necessary in the future for title III MACT compliance. Although the RTO has been designed to minimize NO_x emissions, it will produce 200 tpy of new NO_x emissions due to the unique composition of the emissions stream. There is no information about the project to rebut a presumption that the project will not change utilization of the source. Aside from the NO_x increase there are no other environmental impacts known to be associated with the project.

EVALUATION: As a qualifying add-on control device, the project may be considered a pollution control project and may be considered for an exclusion. The permitting agency should: 1) verify that the NO_x increase has been minimized to the extent practicable, 2) confirm (through modeling or other appropriate means) that the actual significant increase in NO_x emissions does not violate the applicable NAAQS,[7] PSD increment, or adversely impact any Class I area AQRV, and 3) apply all otherwise applicable SIP and minor source permitting requirements, including opportunity for public notice and comment.

Example 2

PROJECT DESCRIPTION: A source proposes to replace an existing coal-fired boiler with a gas-fired turbine as part of a cogeneration project. The new turbine is an exact replacement for the energy needs supplied by the existing boiler and will emit less of each pollutant on an hourly basis than the boiler did.

EVALUATION: The replacement of an existing emissions unit with a new unit (albeit more efficient and less polluting) does

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[7]If the source were located in an area in which nonattainment NSR applied to NO_x emissions increases, 200 tons of NO_x offset credits would be required for the project to be eligible for an exclusion.

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not qualify for an exclusion as a pollution control project. The company can, however, use any otherwise applicable netting credits from the removal of the existing boiler to seek to net the new unit out of major NSR.

Example 3

PROJECT DESCRIPTION: A source plans to physically renovate and upgrade an existing process line by making certain changes to the existing process, including extensive modifications to emissions units. Following the changes, the source will expand production and manufacture and market a new product line. The project will cause an increase in the economic efficiency of the line. The renovated line will also be less polluting on a per-product basis than the original configuration.

EVALUATION: The change is not eligible for an exclusion as a pollution control project. On balance, the project does not have clearly evident pollution control aspects, and the resultant decrease in the per-product emissions rate (or factor) is incidental to the project. The project is a physical change or change in the method of operation that will increase efficiency and productivity.

Example 4

PROJECT DESCRIPTION: In response to the phaseout of chlorofluorocarbons (CFC) under title VI of the Act, a major source is proposing to substitute a less ozone-depleting substance (e.g., HCFC-141b) for one it currently uses that has a greater ozone depleting potential (e.g., CFC-11). A larger amount of the less-ozone depleting substance will have to be used. No other changes are proposed.

EVALUATION: The project may be considered a pollution control project and may be considered for an exclusion. The permitting agency should verify that 1) actual annual emissions of HCFC-141b after the proposed switch will cause less stratospheric ozone depletion than current annual emissions of CFC-11; 2) the proposed switch will not change utilization patterns or increase emissions of any other pollutant which would impact a NAAQS, PSD increment, or AQRV and will not cause any cross-media harm, including any unacceptable increased risk associated with toxic air pollutants; and 3) apply all otherwise applicable SIP and minor source permitting requirements, including opportunity for public notice and comment.

Example 5

PROJECT DESCRIPTION: An existing landfill proposes to install either flares or energy recovery equipment [i.e., turbines or internal combustion (IC) engines]. The reductions from the project are estimated at over 1000 tpy of VOC and are

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currently not necessary to meet Act requirements, but may be necessary some time in the future. In case A the project is the replacement of an existing flare or energy system and no increase in NO_x emissions will occur. In case B, the equipment is a first time installation and will result in a 100 tpy increase in NO_x. In case C, the equipment is an addition to existing equipment which will accommodate additional landfill gas (resulting from increased gas generation and/or capture consistent with the current permitted limits for growth at the landfill) and will result in a 50 tpy increase in NO_x.

EVALUATION: Projects A, B, and C may be considered pollution control projects and may be considered for an exclusion; however, in cases B and C, if the landfill is located in an area required to satisfy nonattainment NSR for NO_x emissions, the source would be required to obtain NO_x offsets at a ratio of at least 1:1 for the project to be considered for an exclusion. [NOTE: VOC-NO_x netting and trading for NSR purposes may be discussed in the upcoming NSR rulemaking, but it is beyond the scope of this guidance.] Although neither turbines or IC engines are listed in section III.A.1 as add-on control devices and would normally not be considered pollution control projects, in this specific application they serve the same function as a flare, namely to reduce VOC emissions at the landfill with the added incidental benefit of producing useful energy in the process.[8]

The permitting agency should: 1) verify that the NO_x increase has been minimized to the extent practicable; 2) confirm (through modeling or other appropriate means) that the actual significant increase in NO_x emissions will not violate the applicable NAAQS, PSD increment, or adversely impact any AQRV; and 3) apply all otherwise applicable SIP and minor source and, as noted above, in cases B and C ensures that NO_x offsets are provided in an area in which nonattainment review applies to NO_x emissions increases. permitting requirements, including opportunity for public notice and comment.

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[8]The production of energy here is incidental to the project and is not a factor in qualifying the project for an exclusion as a pollution control project. In addition, any supplemental or co-firing of non-landfill gas fuels (e.g., natural gas, oil) would disqualify the project from being considered a pollution control project. The fuels would be used to maximize any economic benefit from the project and not for the purpose of pollution control at the landfill. However, the use of an alternative fuel solely as a backup fuel to be used only during brief and infrequent start-up or emergency situations would not necessarily disqualify an energy recovery project from being considered a pollution control project.

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October 21, 1994

MEMORANDUM

SUBJECT: Classification of Emissions from Landfills for NSR Applicability Purposes

FROM: John S. Seitz, Director
Office of Air Quality Planning and Standards (MD-10)

TO: Director, Air, Pesticides and Toxics Management Division, Regions I and IV
Director, Air and Waste Management Division. Region II
Director, Air, Radiation and Toxics Division, Region III
Director, Air and Radiation Division, Region V
Director, Air, Pesticides and Toxics Division, Region VI
Director, Air and Toxics Division, Regions VII, VIII, IX and S

The EPA has recently received several inquiries regarding the treatment of emissions from landfills for purposes of major NSR applicability. The specific issue raised is whether the Agency still considers landfills gas emissions which are not collected to be fugitive for NSR applicability purposes.

The EPA's NSR regulations define "fugitive emissions" to mean "those emissions which could not reasonably pass through a stack, chimney, vent, or other functionally-equivalent opening" (40 CFR 51.165(a)(1)(x)). In general, where a facility is not subject to national standards requiring collection, the technical question of whether the emissions at a particular site could "reasonably pass through a stack, chimney, vent, or other functionally-equivalent opening" is a factual determination to be made by the permitting authority, on a case-by-case basis. In determining whether emissions could reasonably be collected (or if any emissions source could reasonably pass through a stack, etc.) "reasonableness" should be construed broadly. The existence of collection technology in use by other sources in the

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source category creates a presumption that collection is reasonable. Furthermore, in certain circumstances, the collection of emissions from a specific pollutant emitting activity can create a presumption that collection is reasonable for a similar pollutant-emitting activity, even if that activity is located within a different source category.

In 1987, EPA addressed whether landfill gas emissions should be considered as fugitive.[1] The Agency explained that for landfills constructed or proposed to be constructed with gas collection systems, the collected landfill gas would not qualify as fugitive. Also, the Agency understood at the time that, with some exceptions, landfills, were not constructed with such gas collection systems. The EPA explained that "[t]he preamble to the 1980 NSR regulations characterizes nonfugitive emissions as '. . . emissions which would ordinarily be collected and discharged through stacks or other functionally equivalent openings'" (see 45 FR 52693, Aug. 7, 1980).[2] Based on the "understanding that landfills are not ordinarily constructed with gas collection systems." the Agency concluded that emissions from existing or proposed landfills without gas collection systems are to be considered fugitive emissions." The Agency also made clear, however, that the applicant's decision on whether to collect emissions is not the deciding factor. Rather, it is the reviewing authority that makes the decision regarding

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[1]See memorandum entitled "Emissions from Landfills," from Gerald A. Emison, Director, Office of Air Quality Planning and Standards, to David P. Howekamp, Director, Air Management Division, Region IX, dated October 6, 1987 (attached). It is important to note that the interpretation contained in this memorandum was only applicable to landfills.

[2]In fact, the 1980 preamble language recognized the concern that sources could avoid NSR by calling emissions fugitives, even if the source could capture those emissions. The EPA's originally-proposed definition of fugitive emissions was changed in the final 1980 regulations to "ensure that sources will not discharge as fugitive emissions those emissions which would ordinarily be collected and discharged through stacks or other functionally equivalent openings, and will eliminate disincentives for the construction of ductwork and stacks for the collection of emission." Id.

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which emissions can reasonably be collected and therefore not considered fugitive.

The EPA believes its 1987 interpretation of the 1980 preamble may have been misunderstood, and in any case that its factual conclusions at that time are now outdated. Continued misunderstanding or application of this outdated view could discourage those constructing new landfills from utilizing otherwise environmentally- or economically-desirable gas collection and mitigation measures in order to avoid major NSR applicability.

Specifically with regard to landfill gas emissions, gas collection and mitigation technologies have evolved significantly since 1987, and use of these systems has become much more common. Increasingly, landfills are constructed or retrofitted with gas collection systems for purposes of energy recovery and in order to comply with State and Federal regulatory requirements designed to address public health and welfare concerns. In addition, EPA has proposed performance standards for new landfills under section 111(b) of the Clean Air Act and has proposed guidelines for existing landfills under section 111(d) that, when promulgated, will require gas collection systems for existing and new landfills that are above a certain size and gas production level (see 56 FR 24468, May 30, 1991). Under these requirements, EPA estimates that between 500 and 700 medium and large landfills will have to collect and control landfill gas. The EPA believes this proposal created a presumption at that time that the proposed gas collection systems, at a minimum, are reasonable for landfills that would be subject to such control under the proposal.

Thus, EPA believes it is no longer appropriate to conclude generally that landfill gas could not reasonably be collected at a proposed landfill project that does not include a gas collection system. The fact that a proposed landfill project does not include a collection system in its proposed design is not determinative of whether emissions from a landfill are fugitive. To quantify the amount of landfill gas which could otherwise be collected at a proposed landfill for NSR applicability purposes, the air pollution control authority should assume the use of a collection system which has been designed to maximize, to the greatest extent possible, the capture of air pollutants from the landfill.

In summary, the use of collection technology by other landfill sources, whether or not subject to EPA's proposed requirements or to State implementation plan or permit requirements, creates a presumption that collection of the emissions is reasonable at other similar sources. If such a system can reasonably be designed to collect the landfill's gas

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emissions, then the emissions are not fugitive and should be considered in determining whether a major NSR permit is required.

Today's guidance is applicable to the construction of a new landfill or the expansion of an existing landfill beyond its currently-permitted capacity. To avoid any confusion regarding the applicability of major NSR to existing landfills, EPA does not plan to reconsider or recommend that States reconsider the major NSR status of any existing landfill based on the issues discussed in this memorandum. Also, nothing in this guidance voids or creates an exclusion from any otherwise applicable requirement under the Clean Air Act and the State implementation plan, including minor source review.

The Regional Offices should send this memorandum, including the attachment, to States within their jurisdiction. Questions concerning specific issues and cases should be directed to the appropriate Regional Office. Regional Office staff may contact Mr. David Solomon, Chief, New Source Review Section, at (919) 541-5375, if they have any questions.

Attachment

cc: Air Branch Chief, Regions I-X
NSR Contacts, Regions I-X and Headquarters

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October 6, 1987
MEMORANDUM

SUBJECT: Emissions from Landfills

FROM: Gerald A. Emison, Director Office of
Air Quality Planning and Standard (MD-10)

TO: David P. Howekamp, Director
Air Management Division, Region IX

This is in response to your September 1, 1987, memorandum requesting clarification regarding how landfill emissions should be considered for the purpose of determining nonattainment new source review (NSR) applicability under 40 CFR 51.18.

As you are aware, a landfill is subject to NSR if its potential to emit, excluding fugitive emissions, exceeds the 100 tons per year applicable major source cutoff for the pollutant for which the area is nonattainment. Fugitive emissions are defined in 40 CFR (j)(1)(ix) as ". . . those emissions which could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening." Landfill emissions that could reasonably be collected and vented are therefore not considered fugitive emissions and must be included in calculating a source's potential to emit.

For various reasons, (e.g., oder and public health concerns, local regulatory requirements, economic incentives), many landfills are constructed with gas collection systems. Collected landfill gas may be flared, vented to the atmosphere, or processed into useful energy end products such as high-Btu gas, steam, or electricity. In these cases, for either an existing or proposed landfill, it is clear that the collected landfill gas does <u>not</u> qualify as fugitive emissions and must be included in the source's potential to emit when calculating NSR applicability.

The preamble to the 1980 NSR regulations characterizes nonfugitive emissions as ". . . those emissions which would ordinarily be collected and discharged through stacks or other functionally equivalent openings." Although there are some exceptions, it is our understanding that landfills are not ordinarily constructed with gas collection systems. Therefore, emissions from existing or proposed landfills without gas collection systems are to be considered fugitive emissions and are not included in the NSR applicability determination. This does not mean that the applicant's decision on whether to collect emissions is the deciding factor; in fact, the reviewing authority makes the decision on which emissions would ordinarily be collected and which therefore are not considered fugitive emissions.

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It should be noted that NSR applicability is pollutant specific. Therefore, where the landfill gas is flared or otherwise combusted or processed before release to the atmosphere, it is the pollutant released which counts toward NSR applicability. As an example, landfill gas is composed mostly of volatile organic compounds, but when this gas is burned in a flare, it is the type and quantity of pollutants in the exhaust gas (e.g., nitrogen oxides and carbon monoxide) that are used in the NSR applicability determination.

If you have any questions regarding this matter, please contact Gary McCutchen, Chief, New Source Review Section, at FTS 629-5592.

cc: Chief, Air Branch
Regions I-X

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Appendix F

Title V Operating Permits White Paper Number 2

March 5, 1996

MEMORANDUM

SUBJECT: White Paper Number 2 for Improved Implementation of The Part 70 Operating Permits Program

FROM: Lydia N. Wegman, Deputy Director /s/
Office of Air Quality Planning and Standards (MD-10)

TO: Director, Office of Ecosystem Protection, Region I
Director, Environmental Planning and Protection Division, Region II
Director, Air, Radiation and Toxics Division, Region III
Director, Air, Pesticides and Toxics Management Division, Region IV
Director, Air and Radiation Division, Region V
Director, Multimedia Planning and Permitting Division, Region VI
Director, Air, RCRA and TSCA Division, Region VII
Assistant Regional Administrator, Office of Pollution Prevention, State and Tribal Assistance, Region VIII
Director, Air and Toxics Division, Region IX
Director, Office of Air, Region X

Please find attached White Paper Number 2 for improved implementation of part 70 operating permits programs. This guidance is intended to enable State and local agencies to take further steps to reduce the complexity and preparation costs of part 70 permit applications and of the part 70 permits themselves. It is intended to supplement, not obviate, the guidance provided in EPA's "White Paper for Streamlined Development of part 70 Permit Applications" (July 10, 1995). This guidance is consistent with and furthers the goals of the Presidential initiatives to streamline and reinvent government.

The attached guidance is divided into five sections as follows:

II. A. Streamlining Multiple Applicable Requirements On The Same Emissions Unit(s).

II. B. Development Of Applications And Permits For Outdated SIP Requirements.

II. C. Treatment Of Insignificant Emissions Units.

II. D. Use Of Major Source And Applicable Requirement Stipulation.

II. E. Referencing Of Existing Information In Part 70 Permit Applications And Permits.

Streamlining will lead to substantial reductions in permitting burdens and improved part 70 implementation by allowing for the first time multiple applicable emissions limits and work practices expressed in different forms and averaging times to be reduced to a single set of requirements (which can be an alternative to all those requirements being subsumed). It will also allow various monitoring, recordkeeping, and reporting requirements that are not critical to assuring compliance with the streamlined (most stringent) limit to be subsumed in the permit. Any such streamlining must provide that compliance with the streamlined limit would assure compliance with all applicable requirements. In addition, substantial reductions in burden are expected to result from the reduced confusion and cost where locally adopted rules differ from the EPA-approved State implementation plan, the streamlined treatment of insignificant emissions units, the use of stipulations by sources as to which regulations apply, and the cross referencing rather than repetition of certain existing information.

There is an immediate need for the implementation of this guidance. A large number of sources have filed complete part 70 applications, and increasing numbers of these submittals are being processed for permit issuance. I strongly encourage you to work with your States to effect near-term use of this guidance.

Substantial contributions to this White Paper have come from the California Title V Implementation Working Group. I want to thank you and your staff for your support and Region IX in particular for their leadership and considerable efforts in developing and completing this paper. I invite your suggestions on what additional guidance is needed to improve further the initial implementation of title V. If you should have any questions regarding the attached guidance, please contact Michael Trutna at (919) 541-5345, Ginger Vagenas of Region IX at (415) 744-1252, or Roger Powell at (919) 541-5331.

Attachment

cc: M. Trutna (MD-12)
G. Vagenas (Region IX)
R. Powell (MD-12)
A. Schwartz (2344)

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WHITE PAPER NUMBER 2 FOR IMPROVED IMPLEMENTATION OF THE PART 70 OPERATING PERMITS PROGRAM

U.S. ENVIRONMENTAL PROTECTION AGENCY

OFFICE OF AIR QUALITY PLANNING AND STANDARDS

March 5, 1996

Contacts: Michael A. Trutna (919) 541-5345
Ginger Vagenas (415) 744-1252
Roger Powell (919) 541-5331

WHITE PAPER NUMBER 2 FOR IMPROVED IMPLEMENTATION OF THE PART 70 OPERATING PERMITS PROGRAM

March 5, 1996

I. OVERVIEW.

This guidance is intended to enable State and local agencies to take further steps to reduce the complexity and preparation costs of part 70 permit applications and of the part 70 permits themselves and to remove unintended barriers and administrative costs. It is also intended to build on and expand the guidance provided in the Environmental Protection Agency's (EPA) "White Paper for Streamlined Development of Part 70 Permit Applications" (July 10, 1995). White Paper Number 2 supplements, not obviates, the first White Paper. Both papers should be consulted for guidance in improving the implementation of title V of the Clean Air Act (Act) (i.e., part 70 operating permits programs). In particular, White Paper Number 2 is designed to simplify the treatment of overlapping regulatory requirements and insignificant emissions units and to clarify the use of citations and incorporation by reference in the part 70 permitting process. This effort is consistent with and furthers the goals of the Presidential initiatives to streamline and reinvent government.

Substantial contributions to this White Paper have come from the California Title V Implementation Working Group (Working Group). The California Air Resources Board and several California air districts and industries which (together with EPA) make up the Working Group have decades of experience with operating permits. These operating permits programs are generally just one component of air programs that, in many districts, also include local emissions standards (often with associated recordkeeping and reporting requirements), monitoring requirements, inspections, source testing, and new source review (NSR). The EPA has found the insights and recommendations of the Working Group extremely useful in integrating these various requirements using the part 70 permitting process. While much of the guidance contained herein addresses situations arising in California, it is available for use nationwide.

This guidance is divided into five sections and two attachments which are generally summarized as follows (the reader is, however, referred to the applicable main sections of the guidance for more detailed information):

Section II. A. Streamlining Multiple Applicable Requirements On The Same Emissions Unit(s).

The EPA and States have developed different and often overlapping applicable requirements governing the same emissions units to serve the purposes of different air programs. As a result, emissions units at a stationary

source may be subject to several parallel sets of requirements. This can result in some of the requirements being redundant and unnecessary as a practical matter, even though the requirements still legally apply to the source. In cases where compliance with a single set of requirements effectively assures compliance with all requirements, compliance with all elements of each of the overlapping requirements may be unnecessary and could needlessly consume resources. For example, a source could be subject to overlapping standards that result in two or more different emissions limits for the same pollutant and two or more source monitoring requirements for instrumentation, recordkeeping, and reporting.

Today's guidance describes how a source may propose streamlining to distill or "streamline" multiple overlapping requirements into one set that will assure compliance with all requirements. According to the guidance, multiple emissions limits may be streamlined into one limit if that limit is at least as stringent as the most stringent limit. (Limitations that apply to the streamlining of acid rain requirements are described in the main section of this guidance.) If no one requirement is unambiguously more stringent than the others, the applicant may synthesize the conditions of all the applicable requirements into a single new permit term that will assure compliance with all requirements. The streamlined monitoring, recordkeeping, and reporting requirements would generally be those associated with the most stringent emissions limit, providing they would assure compliance to the same extent as any subsumed monitoring. Thus, monitoring, recordkeeping, or reporting to determine compliance with subsumed limits would not be required where the source implements the streamlined approach.

It is important to emphasize that while streamlining may be initiated by either the applicant or the permitting authority, it can only be implemented where the permit applicant consents to its use.

Section II. B. Development Of Applications And Permits For Outdated SIP Requirements.

Historically, long periods of time have been required to review and approve (or disapprove) SIP revisions. The EPA has undertaken a number of reforms to its SIP approval process and is continuing to make significant progress in reducing the amount of time required for taking action on SIP revisions. Despite the progress we have made to date, there are many local rules now pending EPA review and approval for inclusion in the SIP. The gap between the approved SIP and the State rules is of concern because States and local agencies enforce their current rules (which

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are usually more stringent than the approved SIP rules) and often, as a practical matter, no longer enforce the superseded and outdated rules in the SIP. On the other hand, EPA only recognizes and can only enforce the SIP-approved rules. This situation can cause confusion and uncertainty because some sources are effectively subject to two different versions of the same rules. Part 70's application, certification, and permit content requirements highlight this longstanding concern.

The most problematic situation arising from the gap between the approved SIP and the State rules is where a technology-forcing rule that has been approved into the SIP is found by the State to be impossible to meet. Under these circumstances, the State would generally adopt a relaxation of this rule and submit it to EPA as a SIP revision. Until EPA is able to take action on the submitted relaxation, sources remain subject to a rule that is impossible to meet.

This section of the guidance largely addresses the problem by authorizing permitting authorities and their sources to base permit applications on State and local rules that have been submitted for SIP approval, rather than on the potentially obsolete approved SIP provisions that they would replace. Such reliance on pending State and local rules is proper when the permitting authority has concluded that the pending rule will probably be approved, or when the source believes it can show that the pending rule is more stringent than the rule it would replace. However, if the pending rule is not more stringent than the rule it would replace, the permit cannot be issued until the pending rule is approved.

Section II. C. Treatment Of Insignificant Emissions Units.

This section provides for the streamlined treatment of generally applicable requirements that apply to "insignificant" emissions units (IEU's). It is intended to address current concerns that resources will be unnecessarily consumed by matters of trivial environmental importance.

The guidance clarifies that the permitting authority has broad discretion to tailor the permit application and permit for small equipment and activities as long as compliance with Federal requirements is assured. For both the permit application and the permit, information on IEU's may be generically grouped and listed without emissions estimates, unless emissions estimates are needed for another purpose such as determining the amount of permit fees that are calculated using total source emissions. This approach would utilize standard permit conditions with minimal or no reference to any specific emissions unit or activity,

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provided that the scope of the requirement and its enforcement are clear.

The EPA also believes that for IEU's, a responsible official's initial compliance certification may be based on available information and the latest cycle of required information.

The guidance further provides that the permitting authority can use broad discretion in determining the nature of any required periodic monitoring. The EPA's policy on IEU's is based on the belief that these emissions points are typically associated with inconsequential environmental impacts.

Section II. D. Use Of Major Source And Applicable Requirement Stipulation.

There have been concerns expressed that extensive new emissions data would be needed to verify major source status or the applicability of Federal requirements. White Paper Number 2 clarifies that for applicability purposes, a source familiar to the permitting authority may simply stipulate in its application that it is major or that Federal requirements apply as specified in the application. The paper clarifies that there is no need to prepare and submit extensive information about the source that "proves" it is subject to any requirements that it stipulates are applicable. This does not affect the requirement to provide information that is otherwise required by part 70.

Section II. E. Referencing Of Existing Information In Part 70 Permit Applications And Permits.

Concerns have been raised that a source must re-prepare and resubmit information that is readily available, or that the permitting authority already has, to complete part 70 permit applications. In addition, similar concerns have been voiced regarding the large and potentially unnecessary burden of developing permits which repeat rather than reference certain types of regulatory requirements that apply to the source (e.g., monitoring and testing protocols). The guidance clarifies that, in general, the permitting authority may allow information to be cited or cross-referenced in both permits and applications if the information is current and readily available to the permitting agency and to the public. The citations and references must be clear and unambiguous and be enforceable from a practical standpoint. After permits specify which emissions limits apply to identified emissions units, cross-referencing can be authorized for other requirements (e.g., monitoring, recordkeeping, and reporting).

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Attachment A provides guidance on using the part 70 permit process to establish alternative test methods, while Attachment B provides example SIP language that could be used by both part 70 and non-part 70 sources to establish alternative requirements without the need for a prior source-specific SIP revision. This guidance should be particularly useful to those seeking greater certainty or to establish alternative test methods to those now approved by EPA. **[Note that Sections III. and beyond in Attachment B are currently in draft form.]**

Streamlining will lead to substantial reductions in permitting burdens by allowing for the first time multiple applicable emissions limits and work practices expressed in different forms and averaging times to be reduced to a single set of requirements. It will also lower current burden levels by allowing various monitoring, recordkeeping, and reporting requirements that are not critical to assuring compliance with the streamlined (most stringent) limit to be subsumed in the permit. In addition, substantial reductions in burden are expected to result from the reduced confusion and cost where locally adopted rules differ from the EPA-approved SIP, the streamlined treatment of insignificant emissions units, and the use of stipulations and the cross-referencing rather than repetition of certain existing information in part 70 applications and permits.

The EPA believes that the guidance contained herein may be implemented by permitting authorities and sources without revisions to part 70 programs, unless a provision is specifically prohibited by State regulations. In some situations, EPA will be proceeding in parallel to issue clarifying rules. The EPA strongly encourages States to allow sources to take advantage of the streamlining opportunities provided in this guidance. The Agency also suggests the permitting authority develop information about permits issued with successful streamlining and make it available to other similar sources to help avoid repetitive costs.

Sources are advised to consult with their permitting authority to understand how the policies of this White Paper will be implemented. In several situations (particularly those where sources have already filed complete applications), permitting authorities may choose to propose streamlining options and, if mutually agreeable, work with the source to support a draft permit containing a streamlined limit. Where EPA is the permitting authority pursuant to part 71 regulations, the Agency will implement both White Papers to the extent possible and promote similar implementation where EPA delegates responsibility for the part 71 program to a State.

The policies set out in this paper are intended solely as guidance, do not represent final Agency action, and cannot be relied upon to create any rights enforceable by any party.

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II. ADDITIONAL GUIDANCE ON STREAMLINED DEVELOPMENT OF PART 70 PERMITS AND APPLICATIONS.

A. Streamlining Multiple Applicable Requirements[1] On The Same Emissions Unit(s).[2]

1. Issue.

Can multiple redundant or conflicting requirements (emissions limits, monitoring, recordkeeping, reporting requirements) on the same emissions unit(s) be streamlined into a single set of understandable and enforceable permit conditions? May an applicant propose to minimize or consolidate applicable requirements? May a permitting authority develop such a proposal? How would a permit application with a streamlining proposal satisfy compliance certification requirements?

2. Guidance.

A source, at its option, may propose in its application to streamline multiple applicable requirements into a single set of permit terms and conditions[3]. The overall objective would be to

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[1]Title IV applicable requirements are an exception to this general rule. As set out in § 72.70(b), to the extent that any requirements of part 72 and part 78 are inconsistent with the requirements of part 70, part 72 and part 78 will take precedence and will govern the issuance, denial, revision, reopening, renewal, and appeal of the acid rain portion of an operating permit. The subsequent descriptions of streamlining therefore apply to requirements under parts 72 and 78 only to the extent that such requirements are, at the option of the applicant, used as streamlining requirements because they are the most stringent applicable requirements.

[2]Emissions unit(s) means any part or activity of a stationary source that emits or has the potential to emit any regulated air pollutant (as defined in section 70.2) or any pollutant listed under section 112(b) of the Act. It is used in this paper to include specifically a grouping of emissions units at a stationary source that shares the same applicable requirement and compliance demonstration method for a given pollutant.

[3]The EPA recognizes that the described streamlining process may not be allowed by all State regulations or be warranted or desired for all applicable requirements. Similarly, partial streamlining (i.e., the streamlining of some, but not all, applicable requirements that apply to the same emissions units) may be most cost effective where difficult comparisons or correlations are needed for streamlining the other remaining applicable requirements. In addition, there is no barrier to more extensive

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determine the set of permit terms and conditions that will assure compliance with all applicable requirements for an emissions point or group of emissions points so as to eliminate redundant or conflicting requirements. Otherwise applicable requirements that are subsumed in the streamlined requirements could then be identified in a permit shield. The process would be carried out in conjunction with the submittal and review of a part 70 permit application, as an addendum to an application, or as an application for a significant revision to the part 70 permit (unless EPA in its revisions to part 70 authorizes permitting authorities to use a less extensive permit revision process). The EPA plans to revise part 70 to provide that the compliance certification required with initial application submittals may be based on the proposed streamlined applicable requirement where there is sufficient source compliance information on which to base such a certification.

The permitting authority, at its option, may evaluate multiple applicable requirements for a source category and predetermine an acceptable streamlining approach. Such evaluations should be made readily available to applicants. It is up to the applicant, however, to request in its application that such streamlined requirements be contained in the part 70 permit. Where streamlining would be of mutual interest, the permitting authority and the source could work together during the permit development stage to establish a basis for a streamlined limit prior to the issuance of a draft permit. This cooperative activity must result in a record consistent with this guidance which supports the draft permit containing the streamlined requirement. The approach might be particularly useful where a source has already submitted a complete part 70 permit application and the permitting authority does not want to require the source to submit a formal amendment to its application. Any streamlining demonstration must be promptly submitted to EPA upon its availability and in advance of draft permit issuance unless EPA has previously agreed with the permitting authority not to require it (e.g., the proposed streamlining is of a simple and/or familiar type with no new concerns).

In addition, general permits could be useful to allow the transfer of streamlined requirements from the first source to be covered by them to other similar sources or emissions units. The information development and review conducted as part of streamlining for an individual source can be used by the permitting authority to generate a general permit for similar sources or portions of sources. If a general permit were used, EPA and public review beyond that needed to issue the general permit would not be necessary when sources subsequently applied for the streamlined permit conditions established under the

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streamlining occurring in the future.

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general permit. Even where a general permit is not issued, the availability of information obtained from the streamlining of one source may be useful as a model for future streamlining actions involving other similar sources.

Streamlined permit terms should be covered by a permit shield. The permit shield will result in an essential degree of certainty by providing that when the source complies with the streamlined requirement, the source will be considered to be in compliance with all of the applicable requirements subsumed under the streamlined requirement. Where the program does not now provide for a permit shield, the permit containing streamlined requirements should clarify this understanding (See section II.A.3. discussion). Permitting authorities without provisions for permit shields are encouraged to add a permit shield provision at the first opportunity, if they wish to realize fully the benefits of streamlining.

Sources that opt for the streamlining of applicable requirements must demonstrate the adequacy of their proposed streamlined requirements. The following principles should govern their streamlining demonstrations:

a. The most stringent of multiple applicable emissions limitations for a specific regulated air pollutant on a particular emissions unit must be determined taking into account[4,5]:

- o Emissions limitation formats (emissions limits in different forms must be converted to a common format and/or units of measure or a correlation established among different formats prior to comparisons);

- o Effective dates of compliance (to the extent different);

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[4]Applicable requirements mean those requirements recognized by EPA, as defined in § 70.2. State and local permitting authorities may modify, eliminate, or streamline "State-only" requirements based on existing State or local law and procedures.

[5]Sources may, in the interest of greater uniformity, opt to expand the scope of an applicable requirement to more emissions units so that the same requirements would apply over a larger section of the plant or its entirety, provided compliance with all applicable requirements is assured. Though a permit may through streamlining expand the scope of applicable requirements to include new emissions units, it may not change the basis on which compliance is determined (e.g., emissions unit by emissions unit, if that is the intent of the applicable requirement).

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o Transfer or collection efficiencies (to the extent relevant);

o Averaging times[6]; and

o Test methods prescribed in the applicable requirements[7].

Limitations for specific pollutants can be subsumed by limitations on classes of pollutants providing the applicant can show that the streamlined limit will regulate the same set of pollutants to the same extent as the underlying applicable requirements. For example, a volatile organic compound (VOC) limitation could effectively subsume an organic hazardous air pollutant (HAP) limitation for a constituent such as hexane, provided the VOC limit is at least as stringent as the hexane limitation. Where a single VOC limit subsumes multiple HAP limits, the permit must be written to assure that each of the subsumed limits will not be exceeded. However, a limit for a single or limited number of compounds cannot be used to subsume a limit for a broader class (e.g., a hexane limit for a VOC limit) because this would effectively deregulate any of the class that are not covered by the more limited group.

b. Work practice requirements must be treated as follows:

o Supporting An Emissions Limit. A work practice requirement directly supporting an emissions limit

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[6]While the streamlining of requirements with varying averaging times is viable under this policy, in no event can requirements which are specifically designed to address a particular health concern (including those with short term averaging times) be subsumed into a requirement which is any less protective.

[7]The predominant case is expected to involve test methods which have been EPA approved either as part of the SIP or as part of a Federal section 111 or 112 standard. If a permitting authority is seeking to base a streamlined limit on an alternative or new test method relative to the ones already approved by EPA for the SIP or a section 111, or section 112 standard, some additional steps are needed to complete the proposed streamlining. As described in more detail in Attachment A, permitting authorities may only implement streamlining which involves alternative or new test methods within the flexibility granted by the SIP and any delegation of authority from EPA (where section 111/112 standards are involved). With respect to SIP requirements, the ability for a permitting authority to authorize use of a different test method depends on the governing language contained in the SIP. Attachment B contains example SIP language which provides a mechanism that can establish an alternative applicable requirement in such cases without the need for source specific SIP revisions.

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(i.e., applying to the same emissions point(s) covered by the emissions limit) is considered inseparable from the emissions limit for the purposes of streamlining emissions limits. The proposed streamlined emissions limit must include its directly supporting work practices, but need not include any work practice standards that are associated with and directly support the subsumed limit(s);

o Not Supporting An Emissions Limit. Similar work practice requirements which apply to the same emissions or emissions point but which do not directly support an emissions limit may be streamlined (e.g., different leak detection and repair (LDAR[8]) programs). The streamlined work practice requirement may be composed of provisions/elements (e.g., frequency of inspection, recordkeeping) from one or more of the similar work practice requirements, provided that the resulting composite work practice requirement has the same base elements/provisions as the subsumed work practice requirements (e.g. has a frequency of inspection or has recordkeeping if the subsumed work practice requirements have these elements/provisions).

Multiple work practice requirements which apply to different emissions or emissions points cannot be streamlined.

c. Monitoring, reporting, and recordkeeping requirements should not be used to determine the relative stringency of the applicable requirements to which they are applicable.

d. Where the preceding guidance does not allow sufficient streamlining or where it is difficult to determine a single

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[8]For LDAR programs, stringency comparisons likely will be based on the aggregate requirements of each LDAR program (screening levels, frequency of inspection, repair periods, etc,) and the resultant overall actual emissions reduction expected from the affected equipment. In cases where a convincing demonstration cannot be made based on existing information or the regulations themselves have not clearly defined the expected emissions reduction, verifying test data may be required. Alternatively, the applicant, the permitting authority, and EPA can work together to devise a method consistent with the principles of EPA's "Protocol For Equipment Leak Emissions Estimation" (EPA-453/R-95-017, November 1995) for determining relative stringency. Where a demonstration of the relative stringency of LDAR programs as applied to the affected equipment is not feasible, sources may modify elements of a particular LDAR program to produce a program that clearly (i.e., without further analysis) assures compliance with the other applicable LDAR programs.

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most stringent applicable emissions limit by comparing all the applicable emissions limits with each other, sources may perform any or all the following activities to justify additional or different streamlining:

- o Construct an alternative or hybrid emissions limit[9] that is at least as stringent as any applicable requirement;

- o Use a previously "State-only" requirement as the streamlined requirement when it is at least as stringent as any applicable Federal requirement it would subsume (this requirement would then become a federally-enforceable condition in the part 70 permit);

- o Use a more accurate and precise test method than the one applicable (see footnote number 7) to eliminate doubt in the stringency determination; or

- o Conduct detailed correlations to prove the relative stringency of each applicable requirement.

e. The monitoring, recordkeeping, and reporting requirements associated with the most stringent emissions requirement are presumed appropriate for use with the streamlined emissions limit, unless reliance on that monitoring would diminish the ability to assure compliance with the streamlined requirements.[10] To evaluate this presumption, compare whether the monitoring proposed would assure compliance with the streamlined limit to the same extent as would the monitoring applicable to each subsumed limit. If not, and if the monitoring associated with the subsumed limit is also relevant to and technically feasible for the streamlined limit, then monitoring associated with a subsumed limit (or other qualifying monitoring[11]) would be

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[9]Title V allows for the establishment of a streamlined requirement, provided that it assures compliance with all applicable requirements it subsumes. However, EPA recognizes that construction of such hybrid or alternative limits can be more complicated than the situation where the streamlined limit is one of the applicable emissions limits. Accordingly, sources and States may need more time to agree on acceptable demonstrations and may wish to defer such streamlining until after issuance of the initial part 70 permit.

[10]Quality assurance requirements pertaining to continuous monitoring systems should be evaluated using the same approach.

[11]The applicant may propose alternative monitoring of equal rigor. Permitting authorities may only implement streamlining which involves alternative or new monitoring methods within the

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included in the permit.[12] The recordkeeping and reporting associated with the selected monitoring approach may be presumed to be appropriate for use with the streamlined limit[13,14,15].

f. Permitting authorities must include citations to any subsumed requirements in the permit's specification of the origin and authority of permit conditions. In addition, the part 70 permit must include any additional terms and conditions as necessary to assure compliance with the streamlined requirement. In all instances, the proposed permit terms and conditions must be enforceable as a practical matter.

3. Process.

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flexibility granted by the SIP and any delegation of authority from EPA (where section 111/112 standards are involved).

[12]Permitting authorities and sources should presume that existing monitoring equipment [such as continuous emissions monitors (CEMs)] required and/or currently employed at the source should be retained. A permitting authority or applicant would have the opportunity to demonstrate that retention of such monitoring equipment is inappropriate, such as when the monitoring equipment is no longer relevant or is technically infeasible (e.g., the source has switched to a closed loop process without emissions or the streamlined limit corresponds to levels too low for a monitor to measure, such as SO_2 emissions from a boiler firing pipeline quality natural gas.)

[13]Where recordkeeping is the means of determining compliance (e.g., in the miscellaneous metal parts and products coating rules, the typical role of monitoring is fulfilled by recordkeeping), the appropriate recordkeeping would be determined in the same manner described for monitoring.

[14]Where a standard includes recordkeeping associated with a limit in addition to recordkeeping linked to a monitoring device (e.g., a coating facility that has recordkeeping requirements pertaining to coating usage, as well as recordkeeping for monitoring associated with an add-on control), both types of recordkeeping must be incorporated into the permit.

[15]The result offers considerable potential to reduce the different reporting burdens associated with different applicable requirements well beyond what was previously available (e.g., synchronizing the required reporting cycles from different applicable requirements to coincide with the most stringent one beginning at the earliest required date). (See also Final General Provisions, § 63.10(a)(5), March 16, 1994.)

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Streamlining may be accomplished through an applicant proposing to streamline multiple requirements applicable to a source, the permitting authority developing streamlining options for sources or source categories that would be subsequently accepted at the election of permittees, or the applicant working in agreement with the permitting authority after filing an initial complete application. The first six of the following actions wuld be taken by the source or, as appropriate, by the permitting authority. The level of effort to complete these actions will depend on the relative complexity of the streamlining situation. The permitting authority would then perform steps seven and eight.

Step One - Provide a side-by-side comparison of all requirements included in the streamlining proposal that are currently applicable and effective for the specific emissions units of a source[16]. Distinguish between requirements which are emissions and/or work practice standards, and monitoring and compliance demonstration provisions.

Step Two - Determine the most stringent emissions and/or performance standard (or any hybrid or alternative limits as appropriate) consistent with the above streamlining principles and provide the documentation relied upon to make this determination. This process should be repeated for each emissions unit pollutant combination for which the applicant is proposing a streamlined requirement.

Step Three - Propose one set of permit terms and conditions (i.e., the streamlined requirements) to include the most stringent emissions limitations and/or standards, appropriate monitoring and its associated recordkeeping and reporting (see section II.A.2.e.), and such other conditions as are necessary to assure compliance with all applicable requirements.

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[16]A future applicable requirement (e.g., MACT standard newly promulgated under section 112 with a compliance date 3 years in the future) may be determined to be the most stringent applicable requirement if compliance with it would assure compliance with less stringent but currently applicable requirements. In such a case, the source may propose either a streamlined requirement based on immediate compliance with the future applicable requirement or it may opt for a phased approach where the permit would contain two separate time-sensitive requirements. Under the latter approach, one streamlined requirement addressing all currently applicable requirements would be defined to be effective until the future applicable requirement became effective. The permit would also contain a second streamlined requirement which also addressed the future applicable requirement and would become the new streamlined requirement after expiration of the first streamlined requirement.

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Step Four - Certify compliance (applicant only) with applicable requirements. The EPA is planning to revise its part 70 regulations to provide that a source may certify compliance with only the proposed streamlined limit. Until this is accomplished, EPA recommends that a source certifying compliance only with the streamlined limit indicate this in an attachment to the certification, so that it is clear that the certification is being made with respect to a set of terms and conditions that the source believes "assure compliance" with all applicable requirements. In any event, a source may only certify compliance with a streamlined limit if there is source compliance data on which to base such a certification. (Such data should be available where the streamlined requirement is itself an applicable requirement and may be available if the streamlined limit is an alternative limit, e.g., a previously State-only emissions limitation). If there is not, then certifications must instead be made relative to each of the applicable requirements judged to be less stringent and must be based on data otherwise required under them to make this point clear.

Step Five - Develop a compliance schedule to implement any new monitoring/compliance approach relevant to the streamlined limit if the source is unable to comply with it upon permit issuance. The recordkeeping, monitoring, and reporting requirements of the applicable requirements being subsumed would continue to apply in the permit (as would the requirement for the source to operate in compliance with each of its emissions limits) until the new streamlined compliance approach becomes operative.

Step Six - Indicate in the application submittal that streamlining of the listed applicable requirements under a permit shield (where available) is being proposed and propose the establishment of a permit shield which would state that compliance with the streamlined limit assures compliance with the listed applicable requirements. All emission and/or performance standards not subsumed by the streamlined requirements must be separately addressed in the part 70 permit application.

Step Seven - Evaluate the adequacy of the proposal and its supporting documentation. The EPA recommends that the permitting authority communicate its findings to the applicant and provide reasonable opportunity for the applicant to accept the findings or propose a resolution of the differences before issuance of a draft permit for public review. Where the permitting authority determines that the streamlining proposal is inadequate, the source, to retain its application shield, must expeditiously resolve any problems identified by the permitting authority or update

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its prior application based on the individual applicable requirements previously proposed for streamlining.

Step Eight - Note the use of this process in any required transmittal of a part 70 application, application summary, or revised application to EPA and include the streamlining demonstration and supporting documentation in the public record. When the source is required to provide a copy of the application (or summary) directly to EPA, it must note the proposed use of streamlining. A copy of the streamlining demonstration must be submitted promptly to EPA along with the required copy of the application or application summary (where a summary may be submitted to EPA in lieu of the entire part 70 permit application) unless EPA has previously agreed with the permitting authority not to require it (e.g., the proposed streamlining is of a simple and/or familiar type with no new concerns).

4. Enforcement.

All terms and conditions of a part 70 permit are enforceable by EPA and citizens, unless certain terms are designated as being only State (or locally) enforceable. In addition, a source violating a streamlined emissions limitation in the part 70 permit may be subject to enforcement action for violation of one (or more) of the subsumed applicable emissions limits to the extent that a violation of the subsumed emissions limit(s) is documented.

Upon receiving a part 70 permit, a source implementing the streamlined approach would not be subject to an EPA enforcement action for any failure to meet monitoring, recordkeeping, and reporting requirements that are subsumed within the streamlined requirement and specified under the permit shield. These requirements would no longer be independently enforceable once the permit has been issued, provided that the source attempts in good faith to implement the monitoring, recordkeeping, and reporting requirements specified in the permit.

If subsequently the permitting authority or EPA determines that the permit does not assure compliance with applicable requirements, the permit will be reopened and revised.

5. Discussion.

As sources subject to title V identify all applicable requirements for inclusion in part 70 permit applications, they may find that multiple applicable requirements affect the same pollutant or performance parameter for a particular emissions unit. Likewise, the requirements of federally-enforceable terms and conditions in preconstruction or operating permits may overlap with the requirements of other federally-enforceable rules and regulations.

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In these instances, a source may be in compliance with the overall emissions limit of each of the applicable requirements, but be required to comply with a multitude of redundant or conflicting monitoring, reporting, or recordkeeping requirements. For example, a source owner faced with two emissions limits for the same pollutant at a specific emissions point may be required to install separate monitoring instrumentation and submit separate monitoring reports for each, even though one monitor can effectively assure compliance with both emissions limits. Furthermore, the recordkeeping and reporting associated with the unnecessary instrumentation may create an administrative burden for both the facility and the implementing agency without an associated gain in compliance assurance. Prior to title V there has been no federally-enforceable means to resolve this situation.

The EPA encourages permitting authorities to allow use by the permit applicant of the part 70 permit issuance process to streamline multiple applicable requirements to the extent the conditions of this policy can be met. In this way, the part 70 process with its procedural safeguards can be used to focus all concerned parties on providing for compliance with a single set of permit terms that assure compliance with multiple applicable requirements instead of maintaining the costs of multiple sets of controls, monitoring, recordkeeping, and reporting approaches.

The legal basis for streamlining multiple applicable requirements relies on section 504(a), which requires that title V permits contain emissions limits/standards and other terms as needed to assure compliance with applicable requirements. This section notably does not require repetition of all terms and conditions of an applicable requirement when another applicable requirement or part 70 permit condition (i.e., streamlined requirement) could be fashioned to otherwise assure compliance with that applicable requirement.

Section 504(f) lends additional certainty to permit streamlining. It specifically provides that the permitting authority may authorize that compliance with the permit may be deemed to be compliance with the Act provided that the permit includes all applicable requirements. Thus, this section allows the permitting authority to issue a permit containing a shield which protects a source against a claim that it is violating any applicable requirements listed in the permit shield as being subsumed under the streamlined requirement, provided that the source meets the permit terms and conditions that implement the streamlined requirement.

Part 70 is also receptive to the issuance of streamlined permits. It contains parallel language to the statute for emissions limits and for permit shields in §§ 70.6(a)(1) and (f). Although language in § 70.6(a)(3) may appear to restrict streamlining by requiring that all "applicable" monitoring,

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recordkeeping, and reporting requirements be placed in the permit, EPA did not intend for these provisions to preclude streamlining. Instead, the Agency believes that the provisions should be consistent with the flexibility for streamlining provided in section 504(a) of the Act and in § 70.6(a)(1). To require otherwise would be anomalous and could frustrate legitimate streamlining efforts. The EPA intends to revise part 70 to reflect this understanding in a future rulemaking.

Streamlining may be limited in cases where an applicable requirement defines specific monitoring requirements as the exclusive means of compliance with an applicable emissions limit. Some interpret these cases to require that only one set of monitoring requirements may be used to determine compliance and that only these requirements may appear in the part 70 permit. The EPA believes instead that section 504(a) supersedes any need for such exclusive monitoring, but nonetheless recommends that States address any potential concerns by adopting certain SIP language in the future. States that choose to revise their existing SIP's to contain authorizing language to overcome any SIP exclusivity problems may use the example language in Attachment B. The EPA believes that similar flexibility should be provided to non-part 70 sources as well. To that end, Attachment B also provides a SIP process (currently in draft form) which would allow similar flexibility for non-part 70 sources.

With respect to NSR, States can process, in parallel with the part 70 permit issuance process, a revision to an existing NSR permit as necessary to resolve any exclusivity concerns within existing NSR permits (See first White Paper).

Currently the implementing regulations for section 112(l) at 40 CFR part 63, subpart E represent an additional constraint on the streamlining of applicable requirements in part 70 permits but only where a State or local agency has accepted a delegation of authority for a particular maximum achievable control technology (MACT) standard by virtue of its commitment to replace the Federal section 112 emissions standard with the State's own standard or program during the part 70 permit issuance process and using the procedures established in the Subpart E rule at § 63.94.. In § 63.94, EPA has specified the criteria for approving such alternative limits and controls to meet an otherwise applicable section 112 requirement. These criteria must be satisfied to ensure that, after a State accepts delegation under § 63.94, any change to the Federal rule results in permit requirements that, among other things:

- Reflect applicability criteria no less stringent than those in the otherwise applicable Federal standards or requirements;

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o Require levels of emissions control for each affected source and emissions point no less stringent than those contained in the Federal standards or requirements;

o Require compliance and enforcement measures for each affected source and emissions point no less stringent than those in the Federal standards or requirements;

o Express levels of control and compliance and enforcement measures in the same form and units of measure as the Federal standard or requirement for § 63.94 program substitutions;

o Assure compliance by each affected source no later than would be required by the Federal standard or requirement.

Thus, when a State or local agency, after receiving § 63.94 delegation, seeks to replace a Federal section 112 emissions standard with requirements arising from its own air toxics standard or program (such as a toxics NSR program) during the part 70 permit issuance process, streamlining must take place by meeting both the criteria of § 63.94 and, except where contradictory, the criteria of this guidance. However, because most States are planning to take straight delegation of Federal emissions standards through subpart E procedures that do not rely on the part 70 permit issuance process, the EPA believes that the subpart E criteria for streamlining applicable requirements will be necessary only in a minority of instances. In the majority of cases, where a State takes delegation of a Federal standard (e.g., through straight delegation), the applicable section 112 requirements could be streamlined by following only the criteria outlined in section A.2., above. Where there are a large number of sources in the same category subject to a MACT standard for which the State has a regulation with equivalent requirements, EPA recommends that the State explore delegation options under § 63.93 to best utilize available resources.

It should be noted that the current subpart E rule may be subject to change as a result of pending litigation. Currently, EPA intends to revise the rule within the parameters of the Court's decision to allow greater flexibility for approving State air toxics standards and programs and to minimize or remove (as appropriate) any constraint that subpart E might impose on the streamlining of applicable requirements in part 70 permits.

Finally, States are strongly encouraged to adopt regulatory provisions allowing permitting authorities to grant the permit shield where they cannot now do so. The permit shield is an effective means to clarify that for applicable requirements listed as subsumed under the streamlined requirements, compliance with the streamlined requirements is deemed to also be compliance with the subsumed requirements. Such an understanding is essential to support and defend the issuance of any permit which

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provides for the streamlined treatment of multiple applicable requirements.

If a permit shield is not available, a permittee can still be afforded significant enforcement protection by an explicit agency finding that in its judgment the streamlined permit term indeed provides for full compliance with all the permit limits that is subsumes. In such a case, it is imperative that the permit contain language that lists the applicable requirements being subsumed into the streamlined requirement and states that compliance with the streamlined requirement will be deemed compliance with the listed requirements.

B. Development Of Applications And Permits For Outdated SIP Requirements.

1. Issue.

Can sources file part 70 permit applications on the basis of locally adopted rules pending EPA SIP approval rather than the current SIP requirements? Can sources certify their compliance status on the same basis? Under what circumstances can permitting authorities issue and/or later revise part 70 permits based on such locally adopted rules?

2. Guidance.

a. General. In the first White Paper (section II.B.6.), EPA described a mechanism for simplifying permits where a source is subject to both a State adopted rule that is pending SIP approval and the approved SIP version of that rule. Under that approach, the pending SIP requirements would be incorporated into the State-only portion of the permit and would become federally enforceable upon EPA approval of the SIP. The EPA believes that in most instances, the approach described in the first White Paper adequately addresses the described problem. In some areas (most notably California), however, a sizable backlog of pending SIP revisions exists, and a more far-reaching solution is needed. In today's guidance, therefore, another approach that may be used by EPA and permitting authorities to address this situation is described.

Under this new alternative, the permitting authority may allow that application completeness initially be based on locally adopted rules including those which would relax current (i.e., federally-approved) SIP requirements, provided that (1) the local rule has been submitted to EPA as a SIP revision, and (2) the permitting authority reasonably believes that the local rule (not the current SIP rule) will be the basis for the part 70 permit.

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Where the permitting authority or the source has demonstrated to EPA's satisfaction[17] that the local rule is more stringent and therefore assures compliance with the current SIP for all subject sources, a permit application relying on the local rule may be deemed to be complete and a permit containing the requirements of the local rule rather than the current SIP could be issued for part 70 purposes. That is, consistent with section 504(a) of the Act, the part 70 permit need only contain emissions limits and other terms and conditions (i.e., the more stringent local rule) as needed to assure compliance with the applicable requirement (i.e., the current SIP regulation).

An EPA finding that a submitted rule assures compliance with the approved SIP rule would be a preliminary indication of EPA's belief that a part 70 permit incorporating the terms of the submitted rule would also assure compliance with the approved SIP. Such a finding would not equate to rulemaking, and so would not constitute a revision of the SIP. Therefore, a preliminary finding would not necessarily ensure that the proposed revision would ultimately be approved by EPA, nor would it protect a source from enforcement of the approved SIP.[18] Further, such a finding would not predetermine the outcome of the part 70 permit proceeding. Reviewers would have the ability to evaluate any proposed permit terms or conditions based on pending SIP revisions to determine whether the permit assures compliance with applicable requirements, i.e., the approved SIP. However, EPA believes that a finding of this nature should provide the source and the permitting authority sufficient assurance to proceed with the issuance of a permit that reflects the terms of the submitted local rule rather than the approved SIP. Note that a part 70 permit can be based on a local rule even if the local rule is subsequently disapproved by EPA for SIP purposes (e.g., measure is more stringent than the current SIP but fails to meet SIP requirements for reasonably available control technology and/or to make reasonable further progress), provided: (1) a permit based on the local rule would assure compliance with all applicable requirements (including the approved SIP); and (2) the permit meets all part 70 requirements.

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[17]Where resources allow and the situation calls for it, EPA will go on record with a letter to the permitting authority with a list of rules that it has preliminarily determined will assure compliance with the corresponding SIP approved rule.

[18]If a part 70 permit is issued based upon a pending SIP revision and a permit shield is incorporated in the permit, compliance with the permit would be deemed to be compliance with all applicable requirements. If EPA or the permitting authority later discovers that the permit terms do not assure compliance with all applicable requirements, including the applicable SIP, the permit would have to be reopened and revised.

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Where the local rule submitted to EPA as a SIP revision represents a relaxation of the current SIP requirement (e.g., the local rule would replace an existing technology forcing rule that has been determined to be unachievable in practice), a part 70 source may propose in its permit application to base its permit on the local rule in anticipation of EPA approval. However, a permit based on the local rule could not be issued prior to EPA approval of the rule. This is because a permit based on the relaxed requirements of the local rule could not assure compliance with the more stringent applicable requirement (the approved SIP), as required by section 504 of the Act. Similarly, a part 70 source may be subject to pending SIP revisions that may tighten certain current SIP obligations and relax others for sources in that source category. Here again the permitting authority could allow initial application completeness to be determined relying on the locally adopted rule, but the permit could not be issued without the current SIP requirements unless a source opted to demonstrate that the submitted rule represents, for that specific source, a more stringent requirement than the current SIP. In such a case, the part 70 permit could subsequently be issued for that source on the basis of the local rule, since the permit terms would assure compliance with the approved SIP.

b. Initial actions by EPA and permitting authorities. The EPA is committed to working with States within available resources to assure that the timetable for overall permit issuance is not adversely affected by pending SIP revisions that are not straightforward tightenings. The extent of the problem, however, will vary greatly and, in some cases, may require a specific plan of action between EPA and certain States to expedite SIP processing where the problem is substantial.

In California, where this problem is believed to be most extensive, EPA, the districts, and the California Air Resources Board are in the process of identifying rules in the SIP backlog that are not straightforward tightenings or are relaxations of the currently approved SIP, and will target them for expeditious processing. These rules will be identified within a specified timeframe, generally within 1 year of the effective date of a district's part 70 program. The EPA's Region IX will enter into formal agreements with affected districts and will commit to take action on this "targeted" portion of the SIP backlog before comprehensive permit issuance for sources affected by the backlog would be required, provided this is consistent with the transition plan[19] (as it may be revised). Other EPA Regional Offices will determine the need and resources available for this type of exercise on a case-by-case basis. Region IX will also commit to process expeditiously any similar rules submitted or

[19]Transition plan refers to the 3-year transition strategy for initial part 70 permit issuance described in § 70.4(b)(11).

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identified after the period of the formal agreement, although such processing would not necessarily occur before permits must be issued to sources affected by these rules.

Under Region IX's formal agreements, permitting authorities in the districts need not issue the portion of the part 70 permit covering emissions units affected by the targeted backlog until the rule adoption or change identified in the formal agreement has been acted on by EPA, consistent with the flexibility allowed in the permit issuance transition plan in the permitting authority's program. This should in most cases allow permitting authorities to delay issuing permits to sources to the extent they are affected by the targeted SIP backlog until EPA completes its review action on the pending SIP revisions. Where a transition plan contains a permit issuance schedule that would not allow postponing permit issuance until EPA has acted on the proposed SIP revisions, appropriate changes to the plan can still be made to defer permit issuance until EPA action on the targeted SIP backlog. Such changes would be made following the same approach described for changing application forms in EPA's first White Paper. Within these constraints, a permitting authority may allow for issuance of part 70 permits to the facility in phases such that permits covering those emissions units of the facility affected by the targeted SIP revision are issued later. This result is also consistent with the flexibility contained in § 70.2 (see definition of "Part 70 permit") for the permitting authority to issue multiple permits to one part 70 source if it makes sense to do so. Alternatively, the permitting authority could issue the permit in its entirety based on the current SIP.

The EPA agrees that delays in permit issuance described above will not be cause for an EPA finding of failure by the permitting authority to adequately administer or enforce its part 70 program. Any initial permit issued under a phased approach (i.e., the first phase involves all emissions units unaffected by the SIP backlog targeted by EPA), however, does not shield the source from the enforceability of the requirements excluded in the first phase permit and the obligation to obtain permit conditions covering the excluded emissions units after EPA has acted on the relevant SIP rule backlog.

c. Ongoing actions. The preceding guidance should address the most significant problems associated with the development of part 70 permit applications and the subsequent issuance of part 70 permits that result from the existence of a SIP backlog. The EPA recognizes, however, that areas experiencing the most significant start-up problems with respect to pending SIP rules may well require an ongoing program to manage the potential SIP backlog so as to prevent significant problems of this nature from occurring in the future. In some situations it may be appropriate on a continuing basis for EPA to determine preliminarily whether a submitted rule can be listed as one which would assure compliance with the SIP rule it seeks to replace.

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This would enable the permitting authority to adjust its priorities for requiring application updates and for accomplishing permit issuance and revision.

For post application submittal, a source that has filed a complete application may opt to, or be required to, update its current application as a result of changes or pending changes to the SIP. The likelihood of these changes occurring will vary from area to area, and are most likely to affect sources scheduled later in the transition period for initial permit issuance. For example:

- o A local rule previously relied upon may be amended by the State or district.

- o Where a local rule that was previously listed in the formal agreement for expeditious SIP processing (because the rule is not a straightforward strengthening) is disapproved by EPA and the source has relied on that rule in preparing its application, the applicant must file an application update that either demonstrates that compliance with the local rule would assure compliance with the current SIP or demonstrates direct compliance with the current SIP.

- o The adoption and submission to EPA of a more stringent local rule after an applicant has filed its application may present a new and desired opportunity for streamlining. If so, the applicant could opt to file an application update to shift the compliance focus of its current application to the newly adopted local rule, which is pending SIP approval, provided it meets the streamlining criteria described in section II.A. above.

For post permit issuance, sources may also encounter changes to rule situations after initial permit issuance that could lead them to request a permit revision. For example, sources may propose a revision to an issued part 70 permit where a newly adopted local rule would present a desirable streamlining opportunity. The significant permit revision process would be required under the current part 70 to accomplish this change. Note that EPA in its revisions to part 70 may authorize permitting authorities to use a less extensive permit revision process.

To initiate the permit revision, the source must file an application to revise the permit to contain the requirements of local rule instead of the current SIP. This application must meet the previously defined and applicable streamlining criteria.

In response, the permitting authority may subsequently revise the permit based on the local rule in lieu of the current SIP where (1) the rule is listed by the EPA as one where compliance with it would assure compliance with the relevant

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portions of the current SIP, or (2) the applicant has provided a source specific demonstration consistent with the streamlining criteria in section II.A.2. that assures this result. A permit shield or similar permit condition should be issued for purposes of certainty. In the absence of a shield or similar permit condition, all aspects of the approved SIP remain enforceable, regardless of the source's compliance status with respect to the permit. The EPA encourages permitting authorities currently without provisions for incorporating permit shields to add them at their first opportunity.

3. Process.

a. Initial Applications. An applicant proposing to submit its part 70 permit application based on a local rule that has been submitted for EPA approval rather than the current SIP would take one of two courses of actions depending on the status of the local rule with EPA and/or the permitting authority:

The first course of action would be appropriate for local rules that (1) have been previously demonstrated to EPA's satisfaction to be at least as stringent as the approved SIP rule so as to assure compliance with it for all subject sources, (2) are otherwise authorized by the permitting authority based on its judgement that such rules will likely be the basis for the part 70 permit (e.g. EPA approval of the rule is imminent), or (3) have been specifically identified in a formal agreement between the permitting authority and EPA for expeditious SIP processing, i.e., the "targeted backlog." Rules listed in a formal agreement will typically involve local rules pending SIP approval which do or could represent full or partial relaxations of the current SIP. Where they choose to use this approach, the permitting authority and EPA will maintain an up-to-date list of local rules which meet any of these criteria.

In preparing initial part 70 permit applications with respect to such local rules the applicant:

Step One - Will indicate in its application that it has opted for this approach, list or cross-reference all requirements from applicable local rules that are eligible for this approach, and refer to the list maintained for this purpose by the permitting authority.

Step Two - Will identify in the permit application the current SIP requirements that the pending SIP revision would replace.

Step Three - May choose to certify compliance with the requirement(s) of the pending local rule in lieu of the current SIP if there is sufficient source compliance data on which to base such a certification. (The EPA is proposing

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to revise its part 70 regulations to provide that such a certification would meet the requirements of § 70.5(c)(10).)

Step Four - May propose that a permit shield would be in effect upon permit issuance. For those listed local rules which are recognized by EPA as being able to assure compliance with the current SIP rule, the applicant would indicate in the application that a permit shield (or alternatively, other similar language where authority for a permit shield is not available) is being proposed to be incorporated into the permit to confirm this understanding.

The second course of action would be appropriate where the criteria specified above have not been met for a particular rule and an applicant still wants to base its initial part 70 application on such local rules pending SIP approval. In this instance, the process would be essentially the same but the source would have to demonstrate that compliance with the local rule would assure compliance with the current SIP (i.e., make an adequate demonstration consistent with the streamlining criteria described in section II.A.2. above.) and submit it with the permit application in step one. Again, if a part 70 permit application has already been submitted without streamlining but the source agrees to subsequently pursue this option, the permitting authority may work with the source to support streamlining requirements during the permit development process.

b. Initial Permit Issuance Process. After receiving a complete application, the permitting authority must note where the applicant has proposed use of the approaches described above in section II.B.3.a. The note would be placed in the application summary, the application, or the revised application. Copies of the application summary, the application, or the revised application containing such proposals must be submitted promptly to EPA (unless EPA has agreed that the demonstration is of a type not required for advance submittal to EPA).

Where the rule is listed by EPA as one where compliance with it would assure compliance with the relevant portions of the current SIP, or the applicant has provided a source specific demonstration consistent with the streamlining outlined in section II.A.2., the permitting authority may proceed to issue the permit based on the local rule in lieu of the current SIP. A permit shield or similar permit condition which confirms this understanding should be issued for purposes of certainty.

If an applicant chooses to demonstrate that a local rule assures compliance with the applicable SIP for all affected emissions units, the permitting authority will evaluate this proposal and any supporting documentation. Upon completion of this evaluation and prior to releasing a draft permit public notice, the permitting authority is advised to communicate any concerns to the applicant and provide reasonable opportunity for

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the applicant to accept the findings or propose a resolution of the differences. This may cause some revisions to the application as originally filed.

If the permitting authority or EPA are not satisfied that the local rule (as it applies to the applicant's facility) assures compliance with the applicable SIP rule, the applicant must revise its application to rely on the SIP rule. All required application updates must be submitted on or before the reasonable deadline required by the permitting authority for the source to maintain its application shield.

Consistent with the flexibility allowed in the permit issuance transition plan (as it may be revised), the permitting authority may delay issuance of those portions of a source's permit that are covered by a rule identified in a Region IX type formal agreement, which targets certain SIP rules for expeditious processing, until EPA has acted on the relevant rule(s). Alternatively, comprehensive permits may be issued to such a source prior to the time that EPA has acted on the rule provided that they are based on the current SIP (unless the source has provided an adequate streamlining demonstration).

4. Enforcement.

All terms and conditions of the part 70 permit are enforceable by EPA and by citizens. In addition, a source violating the emissions limitation in the part 70 permit is also subject to enforcement action for violation of the current SIP emissions limits if a violation of this limit can be documented.

Upon issuance of a part 70 permit based on the local rule, the permit terms and conditions implementing the local rule would become federally enforceable. A source would not be subject to an EPA enforcement action for any failure to meet monitoring, recordkeeping, and reporting requirements that are required under the currently approved SIP, if such an understanding has been specified in the permit. These requirements would no longer be independently enforceable, provided the source attempts in good faith to implement the monitoring, recordkeeping, and reporting approach required under the local rule.

If subsequently the permitting authority or EPA determines that the permit does not assure compliance with applicable requirements, the permit must be reopened and revised.

5. Discussion.

Sources in California districts currently are subject to several locally adopted rules which are pending before EPA as proposed SIP revisions. The majority of these local rules have been determined by the districts to be more stringent than the SIP rules that they seek to replace, although some of these rules

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would relax the current SIP requirements for certain affected sources. In some cases, technology-forcing SIP rules have been found to be infeasible to achieve and, instead of seeking to enforce them, districts have adopted achievable local rules. Until the local rules are approved into the SIP, sources are subject to both the local rule and the federally-approved version of the rule.

The resulting "outdated SIP" presents special problems to sources which must file a part 70 permit application. In particular, questions arise as to whether sources must complete their applications and certify compliance based on SIP rules which have been superseded by more stringent local rules or by rules that have been relaxed where, for example, the permitting authority has found the current SIP rules to be unachievable. Those problems, while most apparent in their effect on the start-up of a part 70 program, are also ongoing in nature and may create a need to update initially complete permit applications and to revise issued permits. The EPA believes that these problems with outdated SIP rules are most extensive in California but are not unique to that State.

The EPA strongly believes that implementation of title V to the extent possible should complement, not complicate, the implementation of other titles, including title I, the purpose of which is to assure adoption of programs that will attain and maintain the national ambient air quality standards (NAAQS).[20] Accordingly, the Agency is providing this guidance which will allow sources and permitting authorities to rely on more stringent local rules for permit issuance. The overall strategy for sensitizing the SIP revision process to part 70 concerns presented in this guidance will allow sources to focus more on current air quality requirements in all aspects of part 70 permit application development and update, permit issuance, and permit revision.

The legal basis for recognizing a local rule pending SIP approval in lieu of the current, but less stringent, SIP requirement or for streamlining multiple applicable requirements is identical to the basis for adopting a streamlined emissions limit to replace multiple applicable requirements (see discussion in section II.A.5.). The opportunities for shifting to the more stringent local rule are correspondingly affected by the limitations previously described for the streamlining of applicable requirements.

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[20]This guidance is designed primarily to alleviate situations where the SIP backlog is both large and longstanding. It is not to be used as a means of anticipating the outcome of pending attainment status redesignations.

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C. Treatment Of Insignificant Emissions Units.

1. Issue.

How must sources address insignificant emissions units (IEU's) subject to at least one applicable requirement?[21] (Insignificant emissions units are in most cases not directly regulated, and therefore could be left off the permit entirely, were it not for the presence of certain generic or facility-wide requirements that apply to all emissions units.) Must the application and the subsequent permit address each IEU individually and require periodic monitoring where it is not otherwise provided by a generically applicable requirement? On what basis can the initial and future compliance certifications be made for IEU's with generally applicable requirements?

2. Guidance.

The EPA interprets part 70 to allow considerable discretion to the permitting authority in tailoring the amount and quality of information required in permit applications and permits as they relate to IEU's. In general, permit applications must contain sufficient information to support the drafting of the part 70 permit (including certain information for IEU's subject to only generally applicable requirements) and to determine compliance status with all applicable requirements. The EPA, however, interprets part 70 to allow permitting authorities considerable discretion as to the format and content of permits, provided that compliance with all applicable requirements, including those for IEU's, is assured. The Agency believes that the clarifications contained herein afford permitting authorities sufficient flexibility to treat IEU's in a manner commensurate with the environmental benefits that may be gained from their inclusion in the permit.

a. Permit Applications - Information. With regard to part 70 requirements to describe and list IEU's in applications and permits, the permitting authority can use the generic grouping approach for emissions units and activities as discussed in the first White Paper. In addition, the requirement to identify all applicable requirements, as it related to IEU's subject to generally applicable requirements, can normally be addressed by standard or generic permit conditions with minimal

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[21]An emissions unit can be an IEU for one applicable requirement and not for another. However, such a unit may be eligible for treatment as an IEU only with respect to those pollutants not emitted in significant amounts. The term "significant" as used in this policy statement does not have the meaning as used in § 52.21 (e.g., 15 tpy PM-10, 40 tpy VOC) but rather means that the emissions unit does not qualify for treatment in the application as an insignificant emissions unit.

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or no reference to any specific emissions unit or activity. The EPA has reviewed and acquiesced in the issuance of permits wherein generally applicable requirements are incorporated through the use of tables describing a tiered compliance regime for these requirements as they affect different sizes of emissions units, including a distinct and more streamlined compliance regime for IEU's. Different generic permit tables may be necessary to cover the situation for a particular type of IEU which is governed by different applicable requirements. Similarly, the first White Paper provides that no emissions estimates need be provided for even regulated emissions streams where it would serve no useful purpose to do so. This should be the case for IEU's where the amount of emissions from a unit is not relevant to determining applicability of, or compliance with, the requirement. Except where the contributions of IEU's would need to be more precisely known to resolve issues of applicability or major source status would the permitting authority need to request emissions estimates for part 70 purposes.

b. Permit Applications - Initial Compliance Certifications. Section 70.5(c)(9) requires complete part 70 applications to contain a certification of compliance with all applicable requirements by a responsible official and a statement of the methods used for determining compliance. This certification must be based on a "reasonable inquiry" by the responsible official. The EPA believes that, for the generally applicable or facility-wide requirements applying to an IEU, reasonable inquiry for initial certifications need only be based on available information, which would include any information required to be generated by the applicable requirement. Regarding the latter, and as is true for any applicable requirement, the initial certification can be based on only the latest cycle of required information (e.g., a source could generally rely on a demonstration of compliance resulting from the most recent required monitoring, notwithstanding the existence of prior monitoring indicating non-compliance at a previous point in time). Where an applicable requirement (generally applicable or otherwise) does not require monitoring, the § 70.5(c)(9) requirement to certify compliance does not itself require that monitoring be done to support a certification. Similarly, there is no need to perform an emissions test to support this compliance certification if none is required by the applicable requirement itself. The EPA interprets § 70.5(c)(9) to allow for a certification of compliance where there is no required monitoring and, despite a "reasonable inquiry" to uncover other existing information, the responsible official has no information to the contrary.

c. Permit Content - Applicable Requirements. With regard to part 70 obligations to include all applicable requirements in the permit, the permitting authority can also use the generic grouping approach for emissions units and activities as discussed

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in the first White Paper. That is, generally applicable requirements can normally be adequately addressed in the part 70 permit by standard permit conditions with minimal or no reference to any specific emissions unit or activity, provided that the scope of the requirement and the manner of its enforcement are clear. As noted above, different generic permit provisions may be necessary to cover the situation for which different types of IEU's are governed by different applicable requirements.

d. Permit Content - Monitoring, Recordkeeping, and Reporting. Section 70.6(a)(3)(i) requires all applicable requirements for monitoring and analysis procedures or test methods to be contained in part 70 permits. In addition, where the applicable requirement does not require periodic testing or monitoring (which may consist of recordkeeping designed to serve as monitoring), the permitting authority must prescribe periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit. Many of the generically applicable requirements for IEU's have a related test method, but relatively few have a specific regimen of required periodic testing or monitoring.

The EPA believes that the permitting authority in general has broad discretion in determining the nature of any required periodic monitoring. The need for this discretion is particularly evident in the case of generally applicable requirements, which tend to cover IEU's as well as significant emissions units. The requirement to include in a permit testing, monitoring, recordkeeping, reporting, and compliance certification sufficient to assure compliance does not require the permit to impose the same level of rigor with respect to all emissions units and applicable requirement situations. It does not require extensive testing or monitoring to assure compliance with the applicable requirements for emissions units that do not have significant potential to violate emissions limitations or other requirements under normal operating conditions. In particular, where the establishment of a regular program of monitoring would not significantly enhance the ability of the permit to assure compliance with the applicable requirement, the permitting authority can provide that the status quo (i.e., no monitoring) will meet § 70.6(a)(3)(i). For IEU's subject to a generally applicable requirement for which the permitting authority believes monitoring is needed, a streamlined approach to periodic monitoring, such as an inspection program to assure the proper operation and maintenance of emissions activities (e.g., valves and flanges), should presumptively be appropriate.

The EPA's policy on IEU monitoring needs is based on its belief that IEU's typically are associated with inconsequential environmental impacts and present little potential for violations of generically applicable requirements, and so may be good candidates for a very streamlined approach to periodic monitoring. As EPA noted in the first White Paper, generally

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applicable requirements typically reside in the SIP. Permitting authorities therefore not only have the best sense of which requirements qualify as generally applicable, but also where it is appropriate to conclude that periodic monitoring is not necessary for IEU's subject to these requirements. Where the source ascertains that the permitting authority will not require periodic monitoring for IEU's, it can of course omit a periodic monitoring proposal from the application.

e. Permit Content - Compliance Certifications. Section 70.6(c)(5) requires in part that each permitted source submit no less frequently than annually a certification of its compliance status with all the terms and conditions of the permit. This certification will be based on available information, including monitoring and/or other compliance terms required in the permit. Where a particular emissions unit presents little or no potential for violation of a certain applicable requirement, the "reasonable inquiry" required by title V can be abbreviated. Since it can be determined in the abstract that violation of the requirement by these emissions units is highly improbable, it is reasonable in that instance to limit the search for information to what is readily available. As noted above, EPA believes that an IEU subject to a generally applicable requirement typically presents little or no potential for violation of those requirements. It follows that where, for instance, a permit does not require monitoring for IEU's subject to a generally applicable requirement, and there were no observed, documented, or known instances of non-compliance, an annual certification of compliance is presumptively appropriate. Similarly, where monitoring is required, an annual certification of compliance is also appropriate when no violations are monitored and there were no observed, documented, or known instances of non-compliance.

3. Discussion.

Many of the concerns expressed to EPA regarding the treatment of IEU's in the application and permit arise because IEU's are in most cases not directly regulated, and therefore could be left off the permit entirely, were it not for the presence of certain generic requirements that apply to all emissions units. Though the focus of concern is the applicability of the generic requirements to IEU's, response to these concerns derive primarily from the flexibility that exists in part 70 for dealing with generically applicable requirements. In implementing this flexibility, it may be appropriate for the permitting authority to further distinguish between units that have been designated as insignificant and those that have not. This is so because the relative size of a unit can be an important factor in deciding how to fashion permit terms even for a generically applicable requirement, and State-established IEU's normally define the smallest emissions points. However, EPA notes that, as a matter of part 70 interpretation, whether a unit

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has been designated as insignificant is not necessarily critical to its treatment in the part 70 permit.

Concerns have been expressed that addressing in part 70 permits the relatively trivial portion of emissions attributable to IEU's will consume a disproportionate share of the total resources available to issue part 70 permits. That is, according to their understanding of part 70, applicants and permitting authorities will expend greater resources than warranted to determine the specific applicability of requirements to IEU's, how compliance with them will be assured, and the basis on which the certification of compliance status of the source with respect to these IEU's would be made.

The EPA believes that the policy described for addressing generically applicable requirements in applications and permits as they apply to IEU's allows permitting authorities sufficient flexibility to streamline the required administrative effort commensurate to the environmental significance of the varying types of IEU situations. This should prevent the potentially high but unintended level of costs identified by certain sources and permitting authorities from occurring in the future with respect to IEU's.

D. Use Of Major Source And Applicable Requirement Stipulation.

1. Issue.

When an applicant stipulates that it is a major source and subject to specific applicable requirements, how much, if any, additional information related to applicability is necessary in the part 70 permit application?

2. Guidance.

If an applicant stipulates that it is a major source[22] and subject to specific applicable requirements, it need not provide additional information in its application to demonstrate applicability with respect to those requirements, provided that (1) the permitting authority has had previous review experience with a particular source (e.g., issued it a permit), or (2) otherwise has an adequate level of familiarity with the source's operation (e.g., current emissions inventory information). This does not affect the requirement to provide information for other purposes under part 70, such as to support a compliance certification or a request for a permit shield or to describe the emissions activities of its site (see first White Paper).

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[22]If an applicant stipulates it is a major source, it must list all pollutants for which it is major.

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Accordingly, permitting authorities may allow the applicant to stipulate that:

- o Its facility is a major source and subject to part 70 permitting, without providing any additional information for the applicability determination;

- o It is subject to specific applicable requirements, to be included in its part 70 permit, without providing additional information to establish applicability for stipulated requirements; or

- o It is subject to only portions of an applicable requirement and state that it is not subject to other portions. Such a stipulation must explicitly state which portion of the rule applies and which does not and an explanation must be provided for this conclusion.

Stipulation by a source to major source status or specific applicable requirements in a part 70 application does not preclude the permitting authority from requesting additional information from the applicant for establishing the applicability of non-stipulated requirements or for verifying a stipulation that certain requirements are not applicable.

3. Discussion.

In general, part 70 requires that applications contain information to the extent needed to determine major source status, to verify the applicability of part 70 or applicable requirements, and to compute a permit fee (as necessary). Section 70.5(c) requires the application to describe emissions of all regulated air pollutants for each emissions unit.

In the first White Paper, EPA indicated a substantial degree of discretion for permitting authorities in this area. It indicates that States may adopt different approaches to meet the minimum program requirements established by the part 70 regulations depending on local needs. In many instances, a qualitative description of emissions will satisfy this standard. However, the applicant may need to provide more detailed information for purposes other than determining applicability and to foster efficiency in the permitting program.

For the purpose of determining the applicability of part 70 or other specific requirements, the information required in an application should be streamlined for the mutual benefit of the applicant and the permitting authority. An applicant that stipulates it is a major source subject to part 70 and to other applicable requirements should not be required to provide any additional information to verify those facts in its part 70 application. However, the applicant must provide sufficient information to allow the permitting authority to impose the

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applicable requirement. In addition, the resulting application streamlining would not relieve the applicant from submitting, or the permitting authority from reviewing, emissions or other data for part 70 purposes other than determining applicability.

In the case where there is no dispute that a stationary source is subject to part 70, and the applicant stipulates that the source is a part 70 source in the application, no further information would be required for applicability determination. An example would be a source which is currently operating under a prevention of significant deterioration permit because it is major for PM-10. Both the source and the permitting authority agree that the source is subject to the State's part 70 program.

A source may also streamline the part 70 permit process by stipulating that specific applicable requirements apply. This does not relieve the source of its obligation to identify all applicable requirements or preclude the permitting authority from requesting additional information, including information pertaining to the applicability of requirements not covered in the stipulation. For example, a stationary source may stipulate it is subject to a SIP rule. However, the permitting authority may suspect that the source is also subject to a New Source Performance Standard (NSPS), but may need more information for confirmation. In this case, the permitting authority would request additional information related to the applicability of the NSPS.

Similarly, an applicant may stipulate that it is subject to only portions of an applicable requirement and state that it is not subject to other portions. In such case, the permitting authority may request the applicant to provide additional information to demonstrate that it is not subject to requirements in question. However, if a source requests a permit shield, additional information to demonstrate the non-applicability of these requirements must be submitted.

E. Referencing Of Existing Information In Part 70 Permit Applications And Permits.

1. Issue.

Can an applicant in its permit application, and can the permit itself, reference existing information that is available at the permitting authority? Also, can the permit application and the permit reference applicable requirements through citation rather than by a complete reprinting of the requirements themselves in the part 70 permit application or permit?

2. Guidance.

a. General. Information that would be cited or cross referenced in the permit application and incorporated by

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reference into the issued permit must first be currently applicable and available to the permitting authority and public[23]. The information need not be restated in the part 70 application. Standardized citation formats should be established by the permitting authority to facilitate appropriate use of this mechanism.

Referenced documents must also be specifically identified. Descriptive information such as the title or number of the document and the date of the document must be included so that there is no ambiguity as to which version of which document is being referenced. Citations, cross references, and incorporations by reference must be detailed enough that the manner in which any referenced material applies to a facility is clear and is not reasonably subject to misinterpretation. Where only a portion of the referenced document applies, applications and permits must specify the relevant section of the document. Any information cited, cross referenced, or incorporated by reference must be accompanied by a description or identification of the current activities, requirements, or equipment for which the information is referenced.

b. Permit Applications. The applicant and the permitting authority should work together to determine the extent to which part 70 permit applications may cross reference agency-issued rules, regulations, permits, and published protocols, and existing information generated by the applicant. To facilitate referencing existing information, permitting authorities should identify the general types of information available for this purpose. To the extent that such information exists and is readily available to the public, the following types of information may be cited or cross referenced (as allowed by the permitting authority)[24]:

- Rules, regulations, and published protocols.
- Criteria pollutant and HAP emission inventories and supporting calculations.
- Emission monitoring reports, compliance reports, and source tests.

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[23]Referenced documents must be made available (1) as part of the public docket on the permit action or (2) as information available in publicly accessible files located at the permitting authority, unless they are published or are readily available (e.g., regulations printed in the Code of Federal Regulations or its State equivalent).

[24]Use of cross-referencing does not shift any burden of reproducing or otherwise acquiring information to the permitting authority.

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- Annual emissions statements.
- Process and abatement equipment lists and descriptions.
- Current operating and preconstruction permit terms.
- Permit application materials previously submitted.
- Other materials with the approval of the permitting authority.

Applicants are obligated to correct and supplement inaccurate or incomplete permitting authority records relied upon for the purposes of part 70 permit applications. The responsible official must certify, consistent with § 70.5(d), to the truth, accuracy, and completeness of all information referenced.

c. Permits. Incorporation by reference in permits may be appropriate and useful under several circumstances. Appropriate use of incorporation by reference in permits includes referencing of test method procedures, inspection and maintenance plans, and calculation methods for determining compliance. One of the key objectives Congress hoped to achieve in creating title V, however, was the issuance of comprehensive permits that clarify how sources must comply with applicable requirements. Permitting authorities should therefore balance the streamlining benefits achieved through use of incorporation by reference with the need to issue comprehensive, unambiguous permits useful to all affected parties, including those engaged in field inspections.

Permitting authorities may, after listing all applicable emissions limits for all applicable emissions units in the part 70 permit, provide for referencing the details of those limits, rather than reprinting them in permits to the extent that (1) applicability issues and compliance obligations are clear, and (2) the permit includes any additional terms and conditions sufficient to assure compliance with all applicable requirements[25].

Where the cited applicable requirement provides for different and independent compliance options (e.g., boilers subject to an NSPS promulgated under section 111 may comply by use of low sulfur fuel or through add-on of a control device), the permitting authority generally should require that the part 70 permit contain (or incorporate by reference) the specific

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[25]In the case of a merged permit program, i.e., where a State has merged its NSR and operating permits programs, previous NSR permits expire. This leaves the part 70 permit as the sole repository of the relevant prior terms and conditions of the NSR permit. Under these circumstances, it is not possible to incorporate by reference the expired NSR permits.

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option(s) selected by the source. Alternatively, the permit could incorporate by reference the entire applicable requirement provided that (1) such reference is unambiguous in its applicability and requirements, (2) the permit contains obligations to certify compliance and report compliance monitoring data reflecting the chosen control approach, and (3) the permitting authority determines that the relevant purposes of title V would be met through such referencing. The alternative approach would not be allowable if changing from one compliance option to another would trigger the need for a prior review by the permitting authority or EPA (e.g. NSR), unless prior approval is incorporated into the part 70 permit (i.e., advance NSR).

The EPA does not recommend that permitting authorities incorporate into part 70 permits certain other types of information such as the part 70 permit application (see first White Paper).

3. Discussion.

Title V and part 70 do not define when citation or cross-referencing in permit applications would be appropriate, although it obviously would not be allowed where such citations or cross-references would not support subsequent development of the part 70 permit. The EPA's first White Paper states that a permitting authority may streamline part 70 applications by allowing the applicant to cross-reference a variety of documents including permits and Federal, State, and local rules. This guidance further provides that where an emissions estimate is needed for part 70 purposes but is otherwise available (e.g., recent submittal of emissions inventory) the permitting authority can allow the source to cross-reference this information for part 70 purposes.

Permitting authorities' files and databases often include information submitted by the applicant which can also be required by part 70. Development and review of part 70 permit applications could be streamlined if information already held by the permitting authority and the public is referenced or cited in part 70 permit applications rather than restated in its entirety. Similarly, specific citations to regulations that are unambiguous in their applicability and requirements as they apply to a particular source will reduce the burden associated with application development.

Incorporation by reference can be similarly effective in streamlining the content of part 70 permits. The potential benefits of permit development based on an incorporation by reference approach include reduced cost and administrative complexity, and continued compliance flexibility as enforceably allowed by the underlying applicable requirements.

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Expectations for referencing with respect to permit content are somewhat better defined than for permit applications. Section 504(a) states that each permit "shall include enforceable emissions limitations and standards" and "such other conditions as are necessary to assure compliance with the applicable requirements." In addition, section 504(c) requires each permit to "set forth inspection, entry, monitoring, compliance certification, and reporting requirements to assure compliance with the permit terms and conditions." Analogous provisions are contained in §§ 70.6(a)(1) and (3). The EPA interprets these provisions to place limits on the type of information that may be referenced in permits. Although this material may be incorporated into the permit by reference, that may only be done to the extent that its manner of application is clear.

Accordingly, after all applicable emissions limits are placed in the part 70 permit and attached to the emissions unit to which they apply, the permitting authority may allow referencing where it is specific enough to define how the applicable requirement applies and where using this approach assures compliance with all applicable requirements. This approach is a desirable option where the referenced material is unambiguous in how it applies to the permitted facility, and it provides for enforceability from a practical standpoint. On the other hand, it is generally not acceptable to use a combination of referencing certain provisions of an applicable requirement while paraphrasing other provisions of that same applicable requirement. Such a practice, particularly if coupled with a permit shield, could create dual requirements and potential confusion.

Even where the referenced requirement allows for compliance options, the permitting authority may issue the permit with incorporation of the applicable requirement provided that the compliance options of the source are enforceably defined under available control options, appropriate records are kept and reports made, and any required revisions to update the permit with respect to specific performance levels are made. This treatment would be analogous to the flexibility provided to sources through the use of alternative scenarios.

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Attachment A

Approval of Alternative Test Methods

The part 63 general provisions, as well as other EPA air regulations implementing sections 111 and 112 of the Act, allow only EPA-approved test methods to implement emissions standards that are established by States to meet Federal requirements. Accordingly, streamlining cannot result in any requirement relying on a State-only test method unless and until EPA, or the permitting authority acting as EPA's delegated agency, approves it as an appropriate method for purposes of complying with that streamlined standard. Currently, all States may be delegated authority to make decisions regarding minor revisions to EPA approved test methods (i.e., minor changes are those that have isolated consequences, affect a single source, and do not affect the stringency of the emissions limitation or standard). The EPA is exploring options for defining where delegation to States is appropriate for reviewing major revisions or new test methods, and for expediting the approval process where the Agency retains final sign-off authority. The EPA recognizes that its approval must generally occur in a timeframe consistent with the time constraints of the part 70 permit issuance process. Until further guidance on this subject is issued, States must obtain EPA approval for all State-only test methods which represent major changes or alternatives to EPA-approved test methods prior to or within the 45-day EPA review period of the proposed permit seeking to streamline requirements.

With respect to SIP requirements, the ability for a permitting authority to authorize use of a different test method depends on the governing language contained in the SIP. For example, some SIP's expressly connect a test method with a particular emissions limit but allow for the use of an equally stringent method. Other SIP's contain a more exclusive linkage between an emissions limit and its required test method (i.e., limit A as measured by test method B). The SIP-approved test method can be changed only through a SIP revision unless the SIP contains provisions for establishing alternative test methods. Attachment B contains example SIP language which provides a mechanism that can establish an alternative applicable requirement in such cases without the need for a source-specific SIP revision.

Permitting authorities may implement streamlining which involves alternative or new test methods within the flexibility granted by the SIP and any delegation of authority granted by EPA (where section 111/112 standards are involved). Permit applications containing a request for a streamlined requirement based on an alternative or new test method must, to be complete, demonstrate that the alternative or new test method would determine compliance at the same or higher stringency as the otherwise applicable method. The EPA expects to receive

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expeditiously (i.e., well in advance of any draft permit issuance) those portions of an application dealing with a proposal for streamlining, including any demonstration of test method adequacy. Any required EPA approval of an alternative or new test method need not be obtained as a precondition for filing a complete application, but it must be secured before the final part 70 permit can be issued. As mentioned previously, EPA intends to structure its approval process to comport reasonably with the timelines for part 70 permit issuance.

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Attachment B

SIP Provisions For Establishing Alternative Requirements

I. Overview.

States may revise their SIP's to provide for establishing equally stringent alternatives to specific requirements set forth in the SIP without the need for additional source-specific SIP revisions. To allow alternatives to the otherwise-applicable SIP requirements (i.e., emissions limitations, test methods, monitoring, and recordkeeping) the State would include language in SIP's to provide substantive criteria governing the State's exercise of the alternative requirement authority.

II. Example Language For Part 70 Sources To Establish Alternative SIP Requirements.

The following is an example of enabling language that could be used to provide flexibility in the SIP for allowing alternative requirements to be established for part 70 sources.

> In lieu of the requirements imposed pursuant to (reference specific applicable sections(s) or range of sections to be covered), a facility owner may comply with alternative requirements, **provided** the requirements are established pursuant to the part 70 permit issuance, renewal, or significant permit revision process and are consistent with the streamlining procedures and guidelines set forth in section II.A. of White Paper Number 2.
>
> For sources subject to an approved part 70 program, an alternative requirement is approved for the source by EPA if it is incorporated in an issued part 70 permit to which EPA has not objected. Where the public comment period precedes the EPA review period, any public comments concerning the alternative shall be transmitted to EPA with the proposed permit. If the EPA and public comment periods run concurrently, public comments shall be transmitted to EPA no later than 5 working days after the end of the public comment period. The Director's [permitting authority's] determination of approval is not binding on EPA.
>
> Noncompliance with any provision established by this rule constitutes a violation of this rule.

III. Example Language For Non-Part 70 Sources To Establish Alternative SIP Requirements.

[NOTE: This section is a draft that EPA expects to finalize after appropriate revisions in the near future.]

For sources not subject to an approved part 70 program, the following is an example of enabling language that States may use

to revise/submit SIP rules which would provide flexibility in the SIP for allowing alternative requirements to be established.

A. Procedures.

1. General. In lieu of the requirements imposed pursuant to [reference applicable sections] of this plan, a source owner may comply with an alternative requirement, provided that the Director approves it consistent with the procedures of this paragraph and the criteria of paragraph B.

2. State Review Procedure. The Director may establish an alternative requirement in [a review process defined by the State], provided that the requirements of this paragraph are met for EPA and public review and for notification and access are met. The Director's determination of approval is not binding on EPA.

3. Public Review. The Director shall subject any proposed alternative to adequate public review but may vary the procedures for, and the timing of, public review in light of the environmental significance of the action. For the following types of changes [add list of de minimis actions subject to EPA review], no public review shall be necessary for the approval of the alternative.

4. EPA Review. The Director shall submit any proposed alternative to the Administrator through the appropriate Regional Office, except for the following types of changes [add list of de minimis actions subject to EPA review] no EPA review shall be necessary for the approval of the alternative. Until the specific alternative SIP requirement has completed EPA review, the otherwise applicable SIP provisions will continue to apply.

5. Periodic Notification And Public Access. For all actions taken by the State to establish an alternative requirement, the Director shall provide in a general manner for periodic notification to the public on at least a quarterly basis and for public access to the records regarding established alternatives and relevant supporting documentation.

6. Enforcement. Noncompliance with any alternative established by this provision constitutes a violation of this rule. The EPA and the public may challenge such an alternative limit on the basis that it does not meet the criteria contained in the SIP for establishing such an alternative. In addition, EPA and the public can take enforcement action against a source that fails to comply with an applicable alternative requirement.

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B. General Criteria for Evaluating Alternatives.

1. Applicability. The unit(s) to which the requirements apply must be specified in the underlying SIP and in the permit/alternative. If percentage reductions are required from the source, the baseline must be clearly set. The SIP must require the submission of all the information necessary to establish the baseline, and the alternative requirement must achieve the reduction called for in the SIP.

2. Time. The alternative must specify the effective date of the alternative requirement. The underlying requirement of the SIP shall remain in effect until the effective date of the alternative. The alternative must clearly specify any future-effective dates or any compliance schedules that apply to the source under regulations in effect at the time of issuance. For instance, a source may be due to comply with requirements promulgated before the permit/alternative was issued, but which are effective prior to the expiration of the permit/alternative.

3. Effect of changed conditions. If alternative emissions limitations or other requirements are allowed in the underlying SIP, the associated documentation with the changed conditions must clearly demonstrate the alternative requirement is no less stringent than the original SIP requirement.

4. Standard of conduct. The alternative proposal must clearly state what requirements the source must meet. For example, the SIP must specify the emissions limit and what alternatives are acceptable. The alternative proposal must contain limits, averaging times, test methods, etc., that are no less stringent and must address how they are no less stringent than the underlying SIP requirements. The alternative proposal must also show whether it applies on a per-source or per-line basis or is facility-wide.

5. Transfer Efficiency. Any SIP allowing alternative emissions limits and using transfer efficiency in determining compliance must explicitly state the circumstances under which a source may use improved transfer efficiency as a substitute for meeting the SIP limit. The improvement should be demonstrated through testing and an appropriate baseline and test method should be specified.[1] See draft "Guidelines for determining capture efficiencies" for criteria for evaluating alternative capture efficiency requirements.

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[1]Implied improvements noted by the NSPS auto coating transfer efficiency table cannot be accepted at face value.

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6. Averaging Time. Both the SIP and the alternative proposal must explicitly contain the averaging time associated with each emissions limit (e.g., instantaneous, three hour average, daily, monthly, or longer). The time must be sufficient to protect the applicable NAAQS. The alternative proposal must demonstrate that the averaging time and the emissions limit in the alternative are as stringent as those in the original SIP requirements.

7. Monitoring and Recordkeeping. The alternative proposal must state how the source will monitor compliance with the emissions requirement, and detail how the proposed method compares in accuracy, precision, and timeliness to the SIP-approved method. Records and monitoring data must be retained for at least the same period of time as required by the SIP. The method must enable compliance determinations consistent with the averaging time of the emissions standard.

8. Test Methods. The alternative proposal must detail how the proposed test method in association with its particular emissions requirement (or rule) is at least as stringent as the approved method in association with its emissions limit (or rule) considering the accuracy, reliability, reproducibility, and timeliness of each test method taken in combination with its emissions limit. The application or proposal must also address how the change affects measurement sensitivity and representativeness, describe the need for the change, and indicate if the change is needed for unique conditions related only to the source in question. The method must enable a compliance determination consistent with the averaging time of the emissions standard associated with it.

9. Act Requirements. The alternative must meet the all applicable Act requirements (e.g., for reasonably available control technology, 15% VOC reduction, etc.) and must not interfere with any requirements of the Act, including any regarding the SIP's attainment demonstration and requirements for reasonable further progress.

10. Production Level. The emissions are no greater than the SIP allowable emissions at the same production level. Pre-1990 production/operation scenarios cannot be used as part of any demonstration that the alternative requirements are as stringent as those in the SIP. Also, the demonstration must be performed using an EPA-approved test methods.

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Appendix G

Clean Air Act Section 111(d)

Clean Air Act Section 111(d)

(d)(1) The Administrator shall prescribe regulations which shall establish a procedure similar to that provided by section 110 under which each State shall submit to the Administrator a plan which (A) establishes standards of performance for any existing source for any air pollutant (i) for which air quality criteria have not been issued or which is not included on a list published under section 108(a) or 112(b)(1)(A) but (ii) to which a standard of performance under this section would apply if such existing source were a new source, and (B) provides for the implementation and enforcement of such standards of performance. Regulations of the Administrator under this paragraph shall permit the State in applying a standard of performance to any particular source under a plan submitted under this paragraph to take into consideration, among other factors, the remaining useful life of the existing source to which such standard applies.

(2) The Administrator shall have the same authority--

(A) to prescribe a plan for a State in cases where the State fails to submit a satisfactory plan as he would have under section 110(c) in the case of failure to submit an implementation plan, and

(B) to enforce the provisions of such plan in cases where the State fails to enforce them as he would have under sections 113 and 114 with respect to an implementation plan. In promulgating a standard of performance under a plan prescribed under this paragraph, the Administrator shall take into consideration, among other factors, remaining useful lives of the sources in the category of sources to which such standard applies.

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Appendix H

40 CFR 60 Subpart B

Subpart B -- Adoption and Submittal of State Plans for Designated Facilities

60.20 Applicability.

The provisions of this subpart apply to States upon publication of a final guideline document under section 60.22(a).

60.21 Definitions.

Terms used but not defined in this subpart shall have the meaning given them in the Act and in Subpart A:

(a) "Designated pollutant" means any air pollutant, emissions of which are subject to a standard of performance for new stationary sources but for which air quality criteria have not been issued, and which is not included on a list published under section 108(a) or section 112(b)(1)(A) of the Act.

(b) "Designated facility" means any existing facility (see section 60.2(aa)) which emits a designated pollutant and which would be subject to a standard of performance for that pollutant if the existing facility were an affected facility (see section 60.2).

(c) "Plan" means a plan under section 111(d) of the Act which establishes emission standards for designated pollutants from designated facilities and provides for the implementation and enforcement of such emission standards.

(d) "Applicable plan" means the plan, or most recent revision thereof, which has been approved under section 60.27(b) or promulgated under section 60.27(d).

(e) "Emission guideline" means a guideline set forth in Subpart C of this part, or in a final guideline document published under section 60.22(a), which reflects the degree of emission reduction achievable through the application of the best system of emission reduction which (taking into account the cost of such reduction) the Administrator has determined has been adequately demonstrated for designated facilities.

(f) "Emission standard" means a legally enforceable regulation setting forth an allowable rate of emissions into the atmosphere, or prescribing equipment specifications for control of air pollution emissions.

(g) "Compliance schedule" means a legally enforceable schedule specifying a date or dates by which a source or category of sources must comply with specific emission standards contained in a plan or with any increments of progress to achieve such compliance.

(h) "Increments of progress" means steps to achieve compliance which must be taken by an owner or operator of a designated facility, including:

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(1) Submittal of a final control plan for the designated facility to the appropriate air pollution control agency;
(2) Awarding of contracts for emission control systems or for process modifications, or issuance of orders for the purchase of component parts to accomplish emission control or process modification;
(3) Initiation of on-site construction or installation of emission control equipment or process change;
(4) Completion of on-site construction or installation of emission control equipment or process change; and
(5) Final compliance.
(i) "Region" means an air quality control region designated under section 107 of the Act and described in Part 81 of this chapter.
(j) "Local agency" means any local governmental agency.

60.22 Publication of guideline documents, emission guidelines, and final compliance times.

(a) Concurrently upon or after proposal of standards of performance for the control of a designated pollutant from affected facilities, the Administrator will publish a draft guideline document containing information pertinent to control of the designated pollutant from designated facilities. Notice of the availability of the draft guideline document will be published in the FEDERAL REGISTER and public comments on its contents will be invited. After consideration of Public comments and upon or after promulgation of standards of performance for control of a designated pollutant from affected facilities, a final guideline document will be published and notice of its availability will be published in the FEDERAL REGISTER.
(b) Guideline documents published under this section will provide information for the development of State plans, such as:
(1) Information concerning known or suspected endangerment of public health or welfare caused, or contributed to, by the designated pollutant.
(2) A description of systems of emission reduction which, in the judgment of the Administrator, have been adequately demonstrated.
(3) Information on the degree of emission reduction which is achievable with each system, together with information on the costs and environmental effects of applying each system to designated facilities.
(4) Incremental periods of time normally expected to be necessary for the design, installation, and startup of identified control systems.
(5) An emission guideline that reflects the application of the best system of emission reduction (considering the cost of such reduction) that has been adequately demonstrated for designated facilities, and the time within which compliance with emission standards of equivalent stringency can be achieved. The Administrator will specify different emission guidelines or

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compliance times or both for different sizes, types, and classes of designated facilities when costs of control, physical limitations, geographical location, or similar factors make subcategorization appropriate.

(6) Such other available information as the Administrator determines may contribute to the formulation of State plans.

(c) Except as provided in paragraph (d)(1) of this section, the emission guidelines and compliance times referred to in paragraph (b)(5) of this section will be proposed for comment upon publication of the draft guideline document, and after consideration of comments will be promulgated in Subpart C of this part with such modifications as may be appropriate.

(d)(1) If the Administrator determines that a designated pollutant may cause or contribute to endangerment of public welfare, but that adverse effects on public health have not been demonstrated, he will include the determination in the draft guideline document and in the FEDERAL REGISTER notice of its availability. Except as provided in paragraph (d)(2) of this section, paragraph (c) of this section shall be inapplicable in such cases.

(2) If the Administrator determines at any time on the basis of new information that a prior determination under paragraph (d)(1) of this section is incorrect or no longer correct, he will publish notice of the determination in the FEDERAL REGISTER, revise the guideline document as necessary under paragraph (a) of this section, and propose and promulgate emission guidelines and compliance times under paragraph (c) of this section.

60.23 Adoption and submittal of State plans; public hearings.

(a)(1) Unless otherwise specified in the applicable subpart, within 9 months after notice of the availability of a final guideline document is published under section 60.22a), each State shall adopt and submit to the Administrator, in accordance with section 60.4 of subpart A of this part, a plan for the control of the designated pollutant to which the guideline document applies.

(2) Within nine months after notice of the availability of a final revised guideline document is published as provided in section 60.22(d)(2), each State shall adopt and submit to the Administrator any plan revision necessary to meet the requirements of this subpart.

(b) If no designated facility is located within a State, the State shall submit a letter of certification to that effect to the Administrator within the time specified in paragraph (a) of this section. Such certification shall exempt the State from the requirements of this subpart for that designated pollutant.

(c)(1) Except as provided in paragraphs (c)(2) and (c)(3) of this section, the State shall, prior to the adoption of any plan or revision thereof, conduct one or more public hearings within the State on such plan or plan revision.

(2) No hearin[illegible] ll be required for any change to an increment of pro[illegible] in an approved compliance schedule unless

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the change is likely to cause the facility to be unable to comply with the final compliance date in the schedule.

(3) No hearing shall be required on an emission standard in effect prior to the effective date of this subpart if it was adopted after a public hearing and is at least as stringent as the corresponding emission guideline specified in the applicable guideline document published under section 60.22(a).

(d) Any hearing required by paragraph (c) of this section shall be held only after reasonable notice. Notice shall be given at least 30 days prior to the date of such hearing and shall include:

(1) Notification to the public by prominently advertising the date, time, and place of such hearing in each region affected;

(2) Availability, at the time of public announcement, of each proposed plan or revision thereof for public inspection in at least one location in each region to which it will apply;

(3) Notification to the Administrator;

(4) Notification to each local air pollution control agency in each region to which the plan or revision will apply; and

(5) In the case of an interstate region, notification to any other State included in the region.

(e) The State shall prepare and retain, for a minimum of 2 years, a record of each hearing for inspection by any interested party. The record shall contain, as a minimum, a list of witnesses together with the text of each presentation.

(f) The State shall submit with the plan or revision:

(1) Certification that each hearing required by paragraph (c) of this section was held in accordance with the notice required by paragraph (d) of this section; and

(2) A list of witnesses and their organizational affiliations, if any, appearing at the hearing and a brief written summary of each presentation or written submission.

(g) Upon written application by a State agency (through the appropriate Regional Office), the Administrator may approve State procedures designed to insure public participation in the matters for which hearings are required and public notification of the opportunity to participate if, in the judgment of the Administrator, the procedures, although different from the requirements of this subpart, in fact provide for adequate notice to and participation of the public. The Administrator may impose such conditions on his approval as he deems necessary. Procedures approved under this section shall be deemed to satisfy the requirements of this subpart regarding procedures for public hearings.

60.24 Emission standards and compliance schedules.

(a) Each plan shall include emission standards and compliance schedules.

(b)(1) Emission standards shall prescribe allowable rates of emissions except when it is clearly impracticable. Such cases will be identified in the guideline documents issued under

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section 60.22. Where emission standards prescribing equipment specifications are established, the plan shall, to the degree possible, set forth the emission reductions achievable by implementation of such specifications, and may permit compliance by the use of equipment determined by the State to be equivalent to that prescribed.

(2) Test methods and procedures for determining compliance with the emission standards shall be specified in the plan. Methods other than those specified in Appendix A to this part may be specified in the plan if shown to be equivalent or alternative methods as defined in section 60.2(t) and (u).

(3) Emission standards shall apply to all designated facilities within the State. A plan may contain emission standards adopted by local jurisdictions provided that the standards are enforceable by the State.

(c) Except as provided in paragraph (f) of this section, where the Administrator has determined that a designated pollutant may cause or contribute to endangerment of public health, emission standards shall be no less stringent than the corresponding emission guideline(s) specified in Subpart C of this part, and final compliance shall be required as expeditiously as practicable but no later than the compliance times specified in Subpart C of this part.

(d) Where the Administrator has determined that a designated that a designated pollutant may cause or contribute to endangerment of public welfare but that adverse effects on public health have not been demonstrated, States may balance the emission guidelines, compliance times, and other information provided in the applicable guideline document against other factors of public concern in establishing emission standards, compliance schedules, and variances. Appropriate consideration shall be given to the factors specified in section 60.22(b) and to information presented at the public hearing(s) conducted under section 60.23(c).

(e)(1) Any compliance schedule extending more than 12 months from the date required for submittal of the plan shall include legally enforceable increments of progress to achieve compliance for each designated facility or category of facilities. Increments of progress shall include, where practicable, each increment of progress specified in section 60.21(h) and shall include such additional increments of progress as may be necessary to permit close and effective supervision of progress toward final compliance.

(2) A plan may provide that compliance schedules for individual sources or categories of sources will be formulated after plan submittal. Any such schedule shall be the subject of a public hearing held according to section 60.23 and shall be submitted to the Administrator within 60 days after the date of adoption of the schedule but in no case later than the date prescribed for submittal of the first semiannual report required by section 60.25(e).

(f) Unless otherwise specified in the applicable subpart on a case-by-case basis for particular designated facilities or

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classes of facilities, States may provide for the application of less stringent emissions standards or longer compliance schedules than those otherwise required by paragraph (c) of this section, provided that the State demonstrates with respect to each such facility (or class of facilities):

(1) Unreasonable cost of control resulting from plant age, location, or basic process design;

(2) Physical impossibility of installing necessary control equipment; or

(3) Other factors specific to the facility (or class of facilities) that make application of a less stringent standard or final compliance time significantly more reasonable.

(g) Nothing in this subpart shall be construed to preclude any State or political subdivision thereof from adopting or enforcing

(1) emission standards more stringent than emission guidelines specified in Subpart C of this part or in applicable guideline documents or

(2) compliance schedules requiring final compliance at earlier times than those specified in Subpart C or in applicable guideline documents.

60.25 Emission inventories, source surveillance, reports.

(a) Each plan shall include an inventory of all designated facilities, including emission data for the designated pollutants and information related to emissions as specified in Appendix D to this part. Such data shall be summarized in the plan, and emission rates of designated pollutants from designated facilities shall be correlated with applicable emission standards. As used in this subpart, "correlated" means presented in such a manner as to show the relationship between measured or estimated amounts of emissions and the amounts of such emissions allowable under applicable emission standards.

(b) Each plan shall provide for monitoring the status of compliance with applicable emission standards. Each plan shall, as a minimum, provide for:

(1) Legally enforceable procedures for requiring owners or operators of designated facilities to maintain records and periodically report to the State information on the nature and amount of emissions from such facilities, and/or such other information as may be necessary to enable the State to determine whether such facilities are in compliance with applicable portions of the plan.

(2) Periodic inspection and, when applicable, testing of designated facilities.

(c) Each plan shall provide that information obtained by the State under paragraph (b) of this section shall be correlated with applicable emission standards (see section 60.25(a)) and made available to the general public.

(d) The provisions referred to in paragraphs (b) and (c) of this section shall be specifically identified. Copies of such provisions shall be submitted with the plan unless:

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(1) They have been approved as portions of a preceding plan submitted under this subpart or as portions of an implementation plan submitted under section 110 of the Act, and

(2) The State demonstrates:

(i) That the provisions are applicable to the designated pollutant(s) for which the plan is submitted, and

(ii) That the requirements of section 60.26 are met.

(e) The State shall submit reports on progress in plan enforcement to the Administrator on an annual (calendar year) basis, commencing with the first full report period after approval of a plan or after promulgation of a plan by the Administrator. Information required under this paragraph must be included in the annual report required by section 51.321 of this chapter.

(f) Each progress report shall include:

(1) Enforcement actions initiated against designated facilities during the reporting period, under any emission standard or compliance schedule of the plan.

(2) Identification of the achievement of any increment of progress required by the applicable plan during the reporting period.

(3) Identification of designated facilities that have ceased operation during the reporting period.

(4) Submission of emission inventory data as described in paragraph (a) of this section for designated facilities that were not in operation at the time of plan development but began operation during the reporting period.

(5) Submission of additional data as necessary to update the information submitted under paragraph (a) of this section or in previous progress reports.

(6) Submission of copies of technical reports on all performance testing on designated facilities conducted under paragraph (b)(2) of this section, complete with concurrently recorded process data.

60.26 Legal authority.

(a) Each plan shall show that the State has legal authority to carry out the plan, including authority to:

(1) Adopt emission standards and compliance schedules applicable to designated facilities.

(2) Enforce applicable laws, regulations, standards, and compliance schedules, and seek injunctive relief.

(3) Obtain information necessary to determine whether designated facilities are in compliance with applicable laws, regulations, standards, and compliance schedules, including authority to require recordkeeping and to make inspections and conduct tests of designated facilities.

(4) Require owners or operators of designated facilities to install, maintain, and use emission monitoring devices and to make periodic reports to the State on the nature and amounts of emissions from such facilities; also authority for the State to

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make such data available to the public as reported and as correlated with applicable emission standards.

(b) The provisions of law or regulations which the State determines provide the authorities required by this section shall be specifically identified. Copies of such laws or regulations shall be submitted with the plan unless:

(1) They have been approved as portions of a preceding plan submitted under this subpart or as portions of an implementation plan submitted under section 110 of the Act, and

(2) The State demonstrates that the laws or regulations are applicable to the designated pollutant(s) for which the plan is submitted.

(c) The plan shall show that the legal authorities specified in this section are available to the State at the time of submission of the plan. Legal authority adequate to meet the requirements of paragraphs (a)(3) and (4) of this section may be delegated to the State under section 114 of the Act.

(d) A State governmental agency other than the State air pollution control agency may be assigned responsibility for carrying out a portion of a plan if the plan demonstrates to the Administrator's satisfaction that the State governmental agency has the legal authority necessary to carry out that portion of the plan.

(e) The State may authorize a local agency to carry out a plan, or portion thereof, within the local agency's jurisdiction if the plan demonstrates to the Administrator's satisfaction that the local agency has the legal authority necessary to implement the plan or portion thereof, and that the authorization does not relieve the State of responsibility under the Act for carrying out the plan or portion thereof.

60.27 Actions by the Administrator.

(a) The Administrator may, whenever he determines necessary, extend the period for submission of any plan or plan revision or portion thereof.

(b) After receipt of a plan or plan revision, the Administrator will propose the plan or revision for approval or disapproval. The Administrator will, within four months after the date required for submission of a plan or plan revision, approve or disapprove such plan or revision or each portion thereof.

(c) The Administrator will, after consideration of any State hearing record, promptly prepare and publish proposed regulations setting forth a plan, or portion thereof, for a State if:

(1) The State fails to submit a plan within the time prescribed;

(2) The State fails to submit a plan revision required by section 60.23(a)(2) within the time prescribed; or

(3) The Administrator disapproves the State plan or plan revision or any portion thereof, as unsatisfactory because the requirements of this subpart have not been met.

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(d) The Administrator will, within six months after the date required for submission of a plan or plan revision, promulgate the regulations proposed under paragraph (c) of this section with such modifications as may be appropriate unless, prior to such promulgation, the State has adopted and submitted a plan or plan revision which the Administrator determines to be approvable.

(e)(1) Except as provided in paragraph (e)(2) of this section, regulations proposed and promulgated by the Administrator under this section will prescribe emission standards of the same stringency as the corresponding emission guideline(s) specified in the final guideline document published under section 60.22(a) and will require final compliance with such standards as expeditiously as practicable but no later than the times specified in the guideline document.

(2) Upon application by the owner or operator of a designated facility to which regulations proposed and promulgated under this section will apply, the Administrator may provide for the application of less stringent emission standards or longer compliance schedules than those otherwise required by this section in accordance with the criteria specified in section 60.24(f).

(f) If a State failed to hold a public hearing as required by section 60.23(c), the Administrator will provide opportunity for a hearing within the State prior to promulgation of a plan under paragraph (d) of this section.

60.28 Plan revisions by the State.

(a) Plan revisions which have the effect of delaying compliance with applicable emission standards or increments of progress or of establishing less stringent emission standards shall be submitted to the Administrator within 60 days after adoption in accordance with the procedures and requirements applicable to development and submission of the original plan.

(b) More stringent emission standards, or orders which have the effect of accelerating compliance, may be submitted to the Administrator as plan revisions in accordance with the procedures and requirements applicable to development and submission of the original plan.

(c) A revision of a plan, or any portion thereof, shall not be considered part of an applicable plan until approved by the Administrator in accordance with this subpart.

60.29 Plan revisions by the Administrator.

After notice and opportunity for public hearing in each affected State, the Administrator may revise any provision of an applicable plan if:

(a) The provision was promulgated by the Administrator, and

(b) The plan, as revised, will be consistent with the Act and with the requirements of this subpart.

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APPENDIX I

EMISSION GUIDELINES (SUBPART Cc) AND NEW SOURCE PERFORMANCE STANDARDS (SUBPART WWW), AMENDMENTS TO SUBPARTS Cc AND WWW AND APPENDIX A - REFERENCE METHODS (METHOD 2E, METHOD 3C, AND METHOD 25C)

I1 Subparts Cc and WWW of 40 CFR Part 60 can be found as published in the Federal Register on March 12, 1996 (61 FR 9905) or on the internet at http://www.epa.gov/docs/fedrgstr/EPA-AIR/1996/March

I2 Amendments to Subparts Cc and WWW appeared as a direct final notice in the Federal Register on June 16, 1998 (63 FR 32743) and can also be found on the internet at http://www.epa.gov/docs/fedrgstr/EPA-AIR/1998/June

APPENDIX I1

Subparts Cc and WWW of 40 CFR Part 60 can be found as published in the Federal Register on March 12, 1996 (61 FR 9905) or on the internet at http://www.epa.gov/docs/fedrgstr/EPA-AIR/1996/March

§ 706.2 Certifications of the Secretary of the Navy under Executive Order 11964 and 33 U.S.C. 1605.

* * * * *

TABLE FIVE

Vessel	No.	Masthead lights not over all other lights and obstructions. annex I, sec. 2(f)	Forward masthead light not in forward quarter of ship. annex I, sec. 3(a)	After masthead light less than ½ ship's length aft of forward masthead light. annex I, sec. 3(a)	Percentage horizontal separation attained
* * * *	*		*		*
USS PAUL HAMILTON	DDG 60	X	X	X	20.4
* * * *	*		*		*

Dated: February 25, 1996.

R. R. Pixa,

Captain, JAGC, U.S. Navy, Deputy Assistant Judge Advocate General (Admiralty).

[FR Doc. 96-5837 Filed 3-11-96; 8:45 am]

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ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 51, 52, and 60

[AD-FRL-5437-8]

RIN 2060-AC42

Standards of Performance for New Stationary Sources and Guidelines for Control of Existing Sources: Municipal Solid Waste Landfills

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule and guideline.

SUMMARY: This action adds subparts WWW and Cc to 40 CFR part 60 by promulgating standards of performance for new municipal solid waste landfills and emission guidelines for existing municipal solid waste landfills. This action also adds the source category "municipal solid waste landfills" to the priority list in 40 CFR Part 60, § 60.16, for regulation under section 111 of the Clean Air Act. These standards and emission guidelines implement section 111 of the Clean Air Act and are based on the Administrator's determination that municipal solid waste landfills cause, or contribute significantly to, air pollution that may reasonably be anticipated to endanger public health or welfare. The emissions of concern are non-methane organic compounds (NMOC) and methane. NMOC include volatile organic compounds (VOC), hazardous air pollutants (HAPs), and odorous compounds. VOC emissions contribute to ozone formation which can result in adverse effects to human health and vegetation. Ozone can penetrate into different regions of the respiratory tract and be absorbed through the respiratory system. The health effects of exposure to HAPs can include cancer, respiratory irritation, and damage to the nervous system. Methane emissions contribute to global climate change and can result in fires or explosions when they accumulate in structures on or off the landfill site. The intended effect of the standards and guidelines is to require certain municipal solid waste landfills to control emissions to the level achievable by the best demonstrated system of continuous emission reduction, considering costs, nonair quality health, and environmental and energy impacts.

EFFECTIVE DATE: Effective on March 12, 1996.

ADDRESSES: Background Information Document. The background information document for the promulgated standards may be obtained from the U.S. EPA Library (MD-35), Research Triangle Park, North Carolina 27711, telephone number (919) 541-2777. Please refer to "Air Emissions from Municipal Solid Waste Landfills—Background Information for Final Standards and Emission Guidelines," EPA-453/R-94-021. The Background Information Document contains: (1) A summary of all the public comments made on the proposed standards and the Notice of Data Availability as well as the Administrator's response to these comments, (2) a summary of the changes made to the standards since proposal, and (3) the final Environmental Impact Statement, which summarizes the impacts of the standards.

Docket. Docket No. A-88-09, containing supporting information used in developing the promulgated standards, is available for public inspection and copying between 8:00 a.m. and 4:00 p.m., Monday through Friday, except for Federal holidays at the following address: U.S. Environmental Protection Agency, Air and Radiation Docket and Information Center (MC-6102), 401 M Street SW., Washington, DC 20460 [phone: (202) 260-7548]. The docket is located at the above address in Room M-1500, Waterside Mall (ground floor). A reasonable fee may be charged for copying.

FOR FURTHER INFORMATION CONTACT: For information on the regulation of municipal solid waste landfills, contact Ms. Martha Smith, Waste and Chemical Processes Group, Emission Standards Division (MD-13), U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711, telephone number (919) 541-2421.

SUPPLEMENTARY INFORMATION:

Judicial Review

Under section 307(b)(1) of the Clean Air Act, judicial review of the actions taken by this notice is available *only* by the filing of a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit within 60 days of today's publication of this rule. Under section 307(b)(2) of the Clean Air Act, the requirements that are the subject of today's notice may not be challenged

later in civil or criminal proceedings brought by the EPA to enforce these requirements.

The following outline is provided to aid in locating information in the introductory text (preamble) to the final standards.

I. Acronyms, Abbreviations, and Measurement Units
A. Acronyms
B. Abbreviations and Measurement Units
C. Conversion Factors and Commonly Used Units
II. Background
III. Summary of Considerations in Developing the Standards and Emission Guidelines
A. Purpose of the Regulation
B. Technical Basis of the Regulation
C. Stakeholders and Public Involvement
IV. Summary of the Standards, Emission Guidelines, and Methods
V. Impacts of the Standards and Emission Guidelines
A. Environmental Impacts
B. Cost and Economic Impacts
VI. Significant Changes to the Proposed Standards and Emission Guidelines
A. Design Capacity Exemption
B. Emission Rate Cutoff
C. Collection System Design Specifications
D. Timing for Well Placement
E. Operational Standards
F. Surface Emission Monitoring
G. Model Default Values
VII. Permitting
A. New Source Review Permits
B. Operating Permits
VIII. Administrative Requirements
A. Docket
B. Paperwork Reduction Act
C. Executive Order 12866
D. Executive Order 12875
E. Unfunded Mandate Reform Act
F. Regulatory Flexibility Act
G. Miscellaneous

I. Acronyms, Abbreviations, and Measurement Units

The following definitions, acronyms, and measurement units are provided to clarify the preamble to the final rule.

A. Acronyms

BDT—best demonstrated technology
BID—background information document
CAA—Clean Air Act
CERCLA—Comprehensive Environmental Response, Compensation, and Liability Act
EG—emission guideline(s)
EPA—Environmental Protection Agency
FR—Federal Register
HAP—hazardous air pollutant
LFG—landfill gas
MSW—municipal solid waste
NMOC—nonmethane organic compounds
NPV—net present value
NSPS—new source performance standards
NSR—new source review
OMB—Office of Management and Budget
PSD—prevention of significant deterioration
RCRA—Resource Conservation and Recovery Act
VOC—volatile organic compound(s)

B. Abbreviations and Measurement Units

J/scm—joules per standard cubic meter
m—meter
Mg—megagram
mm—millimeter
ppm—parts per million
ppmv—parts per million by volume
tpy—tons per year
yr—year

C. Conversion Factors and Commonly Used Units

1 meter = 3.2808 feet
1 megagram = 1.1023 tons = 2204.6 pounds
1 cubic meter = 35.288 cubic feet = 1.3069 cubic yards
1 cubic meter = 0.0008101 acre-feet
Degrees Celsius = (degrees Fahrenheit − 32)/1.8

II. Background

The United States Environmental Protection Agency (EPA) originally considered regulating MSW landfill emissions under a RCRA subtitle D rulemaking. However, the Administrator decided to regulate MSW landfill emissions under the authority of the CAA, and announced the decision in the Federal Register on August 30, 1988 (53 FR 33314). The EPA decided to propose regulation of new MSW landfills under section 111(b) of the CAA and to propose EG for existing MSW landfills under section 111(d).

The EPA published a proposal of this NSPS and EG in the Federal Register on May 30, 1991 (56 FR 24468).

Following the receipt of new data and changes in the modeling techniques, the EPA published a Notice of Data Availability in the Federal Register on June 21, 1993 (56 FR 33790).

Under the authority of section 111(b)(1)(A) of the CAA, today's notice adds the source category MSW landfills to the priority list in 40 CFR 60.16 because, in the judgement of the Administrator, it contributes significantly to air pollution which may reasonably be anticipated to endanger public health and welfare. Further rationale for this finding is contained in section 1.1.1 of the promulgation BID (EPA-453/R-94-021).

Today's notice promulgates the final NSPS and EG for MSW landfills. The promulgation BID "Air Emissions from Municipal Solid Waste Landfills—Background Information for Final Standards and Guidelines" (EPA 453/R-94-021) summarizes all public comments on the proposed NSPS and EG and the EPA responses. For further discussion of stakeholder and public involvement in the development of the rules see section III.C. of this preamble.

Recent information suggests that mercury might be emitted from landfills. The EPA is still looking at the possibility and will take action as appropriate in the future under the landfill national emission standards for hazardous air pollutants.

III. Summary of Considerations in Developing the Standards and Emission Guidelines

A. Purpose of the Regulation

Landfill gas emissions contain methane, carbon dioxide, and more than 100 different NMOC, such as vinyl chloride, toluene, and benzene. Studies indicate that MSW landfill gas emissions can at certain levels have adverse effects on both public health and welfare. The EPA presented concerns with the health and welfare effects of landfill gases in the preamble to the proposed regulations (56 FR 24468).

Briefly, specific health and welfare effects from LFG emissions are as follows: NMOC contribute to ozone formation; some NMOC are known or suspected carcinogens, or cause other noncancer health effects; NMOC can cause an odor nuisance; methane emissions present a well-documented danger of fire and explosion on-site and off-site, and contribute to global climate change as a major greenhouse gas. Today's rules will serve to significantly reduce these potential problems associated with LFG emissions.

B. Technical Basis of the Regulation

Today's regulations are based on extensive data analysis and consideration of several alternatives. Prior to proposal, the EPA developed an extensive data base, using survey information from approximately 1,200 landfills, along with emissions information from literature, State and local agencies, and industry test reports. The preamble to the proposed regulations presented a detailed discussion of the data used to develop the rule and the regulatory alternatives considered (56 FR 24476).

After proposal, the EPA continued to gather new information and received new data through public comments. The EPA published this new information in a Notice of Data Availability on June 21, 1993 (56 FR 33790). In addition to

public comments, the EPA held consultations with industry under the authority of Executive Order 12875 (See section VIII of this document for a detailed discussion of the Executive Order).

Based on the new information, the EPA re-assessed the impacts of the alternatives and made changes to the final regulation. The most significant changes to the regulation are summarized in section VI of this preamble. Detailed rationales for these changes as well as more minor changes are provided in the final BID (EPA 453/R-94-021).

In keeping with the EPA's common sense initiative, several of the changes were made to streamline the rule and to provide flexibility. Examples of this streamlining and increased flexibility include focusing control on the largest landfills, removing the gas collection system prescriptive design specifications, and more reasonable timing for the installation of collection wells. All of these changes are discussed further in section VI of this preamble.

C. Stakeholders and Public Involvement

Prior to proposal, in accordance with section 117 of the CAA, the EPA had consultations with appropriate advisory committees, independent experts, Federal departments and agencies. In addition, numerous discussions were held with industry representatives and trade associations.

After proposal, the EPA provided interested persons the opportunity to comment at a public hearing and through a written comment period. Comment letters were received from 60 commenters including industry representatives, governmental entities, environmental groups, and private citizens. A public hearing was held in Research Triangle Park, North Carolina, on July 2, 1991. This hearing was open to the public and five persons presented oral testimony on the proposed NSPS and EG.

On June 21, 1993, a supplemental notice of data availability to the May 30, 1991 proposal appeared in the Federal Register (58 FR 33790). The notice announced the availability of additional data and information on changes in the EPA's modelling methodology being used in the development of the final NSPS and EG for MSW landfills. Public comments were requested on the new data and comment letters were received from seven commenters.

Since the Notice of Data Availability, the EPA has held several consultations with State, local, and industry representatives in accordance with the October 26, 1993 Executive Order 12875 on *Enhancing the Intergovernmental Partnership*.

Major concerns expressed by participants in the consultations were identified by the EPA. These concerns included: the design capacity exemption level, collection system design and monitoring flexibility, and timing of well placement. These concerns and others raised at proposal and clarified in the consultations were addressed by revising the rule as described in section VI of this preamble.

IV. Summary of the Standards, Emission Guidelines, and Methods

The affected facility under the NSPS is each new MSW landfill. MSW landfills are also subject to the requirements of RCRA (40 CFR 257 and 258). A new MSW landfill is a landfill for which construction, modification, or reconstruction commences on or after the proposal date of May 30, 1991 or that began accepting waste on or after that date.

The EG require control for certain existing MSW landfills. An existing MSW landfill is a landfill for which construction commenced prior to May 30, 1991. An existing MSW landfill may be active, i.e., currently accepting waste, or have additional capacity available to accept waste, or may be closed, i.e., no longer accepting waste nor having available capacity for future waste deposition. The designated facility under the EG is each existing MSW landfill that has accepted waste since November 8, 1987.

The final rules (both the NSPS and EG) require affected and designated MSW landfills having design capacities below 2.5 million Mg or 2.5 million cubic meters to file a design capacity report. Affected and designated MSW landfills having design capacities greater than or equal to 2.5 million Mg or 2.5 million cubic meters are subject to the additional provisions of the standards or EG.

The final standards and EG for MSW landfill emissions require the periodic calculation of the annual NMOC emission rate at each affected or designated facility with a maximum design capacity greater than or equal to 2.5 million Mg or 2.5 million cubic meters. Those that emit more than 50 Mg/yr are required to install controls.

The final rules provide a tier system for calculating whether the NMOC emission rate is less than or greater than 50 Mg/yr, using a first order decomposition rate equation. The tier system does not need to be used to model the emission rate if an owner or operator has or intends to install controls that would achieve compliance. Chapter 1 of the promulgation BID (EPA 453/R-94-021) presents a complete discussion of the components of the tier system.

The BDT for both the NSPS and the EG requires the reduction of MSW landfill emissions from new and existing MSW landfills emitting 50 Mg/yr of NMOC or more with: (1) A well-designed and well-operated gas collection system and (2) a control device capable of reducing NMOC in the collected gas by 98 weight-percent.

A well-designed and well-operated collection system would, at a minimum: (1) Be capable of handling the maximum expected gas generation rate; (2) have a design capable of monitoring and adjusting the operation of the system; and (3) be able to collect gas effectively from all areas of the landfill that warrant control. Over time, new areas of the landfill will require control, so collection systems should be designed to allow expansion by the addition of further collection system components to collect gas, or separate collections systems will need to be installed as the new areas require control.

The BDT control device is a combustion device capable of reducing NMOC emissions by 98 weight-percent. While energy recovery is strongly recommended, the cost analysis is based on open flares because they are applicable to all affected and designated facilities regulated by the standards and EG. If an owner or operator uses an enclosed combustor, the device must demonstrate either 98-percent NMOC reduction or an outlet NMOC concentration of 20 ppmv or less. Alternatively, the collected gas may be treated for subsequent sale or use, provided that all emissions from any atmospheric vent from the treatment system are routed to a control device meeting either specification above.

The standards and EG require that three conditions be met prior to capping or removal of the collection and control system: (1) The landfill must be permanently closed under the requirements of 40 CFR 258.60; (2) the collection and control system must have been in continuous operation a minimum of 15 years; and (3) the annual NMOC emission rate routed to the control device must be less than the emission rate cutoff on three successive dates, between 90 and 180 days apart, based upon the site-specific landfill gas flow rate and average NMOC concentration.

Section VI.E. of this preamble describes a new section of the NSPS, § 60.753, "Operational Standards for Collection and Control Systems." The EG also refer to this section. The

provisions in this section include: (1) Collection of gas from each area, cell or group of cells in which non-asbestos degradable solid waste has been placed for a period of 5 years or more for active areas or 2 years or more for closed areas; (2) operation of the collection system with each wellhead under negative pressure, with a nitrogen level less than or equal to 20 percent (revised from 1 percent in the proposal, based on public comments) or an oxygen level less than or equal to 5 percent (a new provision); (3) operation with a landfill gas temperature less than 55 °C (a new provision) at each well transporting the collected gases to a treatment or control device designed and operated in compliance with § 60.752(b)(2)(iii) of the NSPS and operated at all times when the collected gas is vented to it; and (4) a requirement that the collection system be operated to limit the surface methane concentration to 500 ppm or less over the landfill as determined according to a specified monitoring pattern.

Owners and operators must determine compliance with the standards for the collection systems and control devices according to § 60.755. Changes made to the final compliance determination and monitoring procedures as a result of comments are discussed in detail in the BID (EPA 453/R-94-021). The §§ 60.757 and 60.758 of the NSPS and § 60.35(c) of the EG contain recordkeeping and reporting requirements. Changes have been made to the recordkeeping and reporting requirements to allow for consistency with the final compliance requirements.

V. Impacts of the Standards and Emission Guidelines

A. Environmental Impacts of Promulgated Action

The estimated environmental impacts have changed somewhat from those presented in the preamble to the proposed regulations as a result of changes in the final rules and changes in the estimation methodology. These changes were made in response to public comments. Additional data were also incorporated and are described in the supplemental Notice of Data Availability (56 FR 33790). The analysis of environmental impacts presented in this document, along with the proposal and promulgation BID's, and memoranda in the docket constitute the Environmental Impact Statement for the final standards and guidelines.

For most NSPS, emission reductions and costs are expressed in annual terms. In the case of the NSPS and EG for landfills, the final regulations require controls at a given landfill only after the increasing NMOC emission rate reaches the level of the regulatory cutoff. The controls are applied when the emissions exceed the threshold, and they must remain in place until the emissions drop below the cutoff. However, this process could take as long as 50 to 100 hundred years for some landfills. During the control period, costs and emission reductions will vary from year to year. Therefore, the annualized numbers for any impact will change from year to year. Because of the variability of emission reductions and costs of the final standards and EG over time, the EPA judged that the NPV of an impact is a more valuable tool in the decision process for landfills and has used NPV in the development of both the proposal and final nationwide impacts. The NPV is computed by discounting the capital and operating costs and emission reductions that will be incurred throughout the control periods to arrive at a measure of their current value. In this way, the NPV accounts for the unique emission patterns of landfills when evaluating nationwide costs and benefits over different discrete time periods for individual sources. Thus, the impacts presented include both annualized estimates and estimates expressed in terms of NPV in 1992.

1. Air Emissions

The methodology for estimating the impacts of the NSPS and EG is discussed in the proposal BID and in memoranda in the docket. The analysis of impacts for the NSPS is based on new landfills (beginning construction after May 30, 1991) that are projected to begin accepting waste over the first 5 years of the standards. The NPV of the emission reduction achieved by the final standards is estimated to be 79,300 Mg, which reflects a 50 percent reduction from the NPV of the baseline emissions of 160,000 Mg. Substantial reduction of methane emissions is also achieved. Table 1 presents the emission reductions of the final NSPS in annualized values as well as NPV.

TABLE 1.—SUMMARY OF EMISSION REDUCTION AND COST IMPACTS FOR THE NSPS

	NPV	Annualized
Baseline NMOC Emissions[a] (Mg)	160,000	13,400
NMOC Emission Reductions (Mg)	79,300	4,860
% NMOC Emission Reduction	50%	36%
Baseline Methane Emissions[a] (Mg)	10,600,000	899,000
Methane Emission Reduction[b] (Mg)	3,890,000	193,000
% Methane Emission Reduction	37%	21%
Cost (Million $)	97	4

[a] In the absence of an NSPS. This does not include landfills closed prior to November 8, 1987.
[b] This does not enclude landfills expected to undertake profitable energy recovery.

For existing landfills, the NPV of the NMOC emission reduction achieved by the final EG is estimated to be 1.1 million Mg, or a 53 percent reduction from a baseline of 2.07 million Mg (NPV). The NPV of the methane reduction is estimated to be 47 million Mg. Table 2 presents the emission reductions of the final EG in annualized values as well as NPV. Note that the baseline methane emissions do not include landfills closed prior to November 8, 1987, and that methane reductions shown in Tables 1 and 2 do not include landfills expected to undertake profitable energy recovery. Total methane reductions are anticipated to be on the order of 7 million megagrams in the year 2000.

TABLE 2.—SUMMARY OF EMISSION REDUCTION AND COST IMPACTS FOR THE EMISSION GUIDELINES

	NPV	Annualized
Baseline NMOC Emissions[a] (Mg)	2,070,000	145,000
NMOC Emission Reductions (Mg)	1,100,000	77,600
% NMOC Emission Reduction	53%	54%
Baseline Methane Emissions[b] (Mg)	120,000,000	8,440,000
Methane Emission Reduction (Mg)	47,000,000	3,370,000
% Methane Emission Reduction	39%	40%
Cost (Million $)	1,278	90

[a] In the absence of EG. This does not include landfills closed prior to November 8, 1987.
[b] This does not enclude landfills expected to undertake profitable energy recovery.

As existing landfills are filled, closed, and replaced by new landfills, the actual annual emissions reductions achieved by the guidelines will decrease, while the reductions achieved by the standards will increase.

Certain by-product emissions, such as NO_X, CO, SO_X, and particulates, may be generated by the combustion devices used to reduce air emissions from MSW landfills. The types and quantities of these by-product emissions vary depending on the control device. However, by-product emissions are very low compared to the achievable NMOC and methane emission reductions. Chapters 4 and 6 of the proposal BID (EPA-450/3-90-011a) present additional information about the magnitude of potential secondary air impacts.

2. Water

Landfill leachate is the primary potential source of water pollution from a landfill. Although there is no data on the effect of gas collection on leachate composition, the amount of water pollution present as NMOC in the leachate may be reduced under these standards and guidelines.

When LFG is collected, organics and water are condensed inside the header pipes of the gas collection system. This waste also contains NMOC and various toxic substances present in the LFG. The pH of this condensate is normally adjusted by adding caustic at the landfill and then routing it to a public treatment works where it would be treated and discharged. At this time, there is insufficient data available to quantify the effects of the rule on leachate.

3. Solid Waste

The final NSPS and EG will likely have little impact on the quantity of solid waste generated nationwide. Aside from the disposal of the collection and control system equipment once it can be removed from the landfill, no other solid wastes are expected to be generated by the required controls. The increased cost of landfill operation resulting from the control requirements may cause greater use of waste recycling and other alternatives to landfill disposal, leading to a decrease in landfill use. However, quantification of such an impact is not possible at this time.

4. Superfund Sites

Municipal solid waste landfill sites comprise approximately 20 percent of the sites placed by the EPA on the national priorities list. Often, remedial actions selected at these sites include venting methane and volatile organic contaminants, which would be controlled as necessary to protect human health and the environment.

The final NSPS and EG may affect remedial actions under Superfund for MSW landfills. Section 121(d)(2) of CERCLA requires compliance with the substantive standards of applicable or relevant and appropriate requirements (ARAR) of certain provisions in other environmental laws when selecting and implementing on-site remedial actions. "Applicable" requirements specifically address a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstance at a Superfund site. "Relevant and appropriate" requirements are not legally applicable, but may address problems or situations sufficiently similar to those encountered so that their use is well suited to a particular site. See 40 CFR 300.5 (55 FR 8814, 8817, March 8, 1990).

These air emission rules will apply to new MSW landfills, as well as to those facilities that have accepted waste since November 8, 1987, or that have capacity available for future use. For CERCLA municipal landfill remediations, these requirements would be potential ARAR for all Records of Decision signed after the date of promulgation. These NSPS and EG will be applicable for those MSW landfill sites on the national priorities list that accepted waste on or after November 8, 1987, or that are operating and have capacity for future use. These standards may also be determined relevant and appropriate for sites that accepted wastes prior to November 8, 1987. The determination of relevance and appropriateness is made on a site-specific basis pursuant to 40 CFR 300.400(g) (55 FR 8841, March 8, 1990). Because the NSPS and EG apply only to landfills with design capacities greater than or equal to 2.5 million Mg or 2.5 million cubic meters, the collection and control requirements may not be relevant and appropriate for smaller landfills.

Given the significant public policy benefits that result from the collection and processing of landfill gas, Congress, as part of the 1986 SARA Amendments, enacted CERCLA Section 124 to provide broad liability protection for companies engaged in landfill gas recovery or processing. Landfill gas emissions, in addition to being a significant source of air pollution, can leach underground and cause explosions in nearby residences. If recovered, landfill gas could supply as much as 1 percent of the U.S. energy requirements.

CERCLA Section 124 states that owners or operators of equipment installed "for the recovery or processing (including recirculation of condensate) of methane" shall not be liable as a CERCLA "owner or operator" under CERCLA Section 101 (20) nor shall they be deemed "to have arranged for disposal or treatment of any hazardous substance* * *" pursuant to CERCLA Section 107. Exceptions are provided (1) where a release is primarily caused by activities of the landfill gas owner/operator or (2) where such owner/operator would be otherwise liable due to activities unrelated to methane recovery.

Since passage of CERCLA section 124, methane emissions have been targeted by the EPA as a large contributor to global warming (18 percent) and landfills are one of the largest source of methane emissions (36 percent). Because of this, the EPA's Atmospheric Pollution Prevention Division has initiated the Landfill Methane Outreach Program to promote landfill gas

collection projects at the 750 landfills where methane could profitably be recovered. Methane recovery, as compared with collection and flaring of landfill gas without recovery, results in significantly less emissions. It also can greatly reduce the financial burden on local governments (as well as taxpayers) since the energy recovered can be sold to utilities or other consumers and thereby create a revenue stream that may cover the costs of collection and recovery.

The EPA is aware that the standards and guidelines promulgated today for control of emissions at municipal solid waste landfills may change the focus of the landfill gas collection and processing for methane recovery. The landfill gas owner/operator will now need to consider how the collection and recovery of methane will impact on controlling the MSW landfill emissions. It is also likely that the landfill gas owner/operator will be asked to advise and in some cases help implement the MSW landfill's compliance obligations. These related objectives, the control of emissions at municipal solid waste landfills in order to comply with the Clean Air Act Amendments and the reduction of methane emissions in order to mitigate global warming, will need to be coordinated in carrying out common activities such as laying a system of collection piping at a given landfill.

In promulgating today's standards and guidelines, the EPA wants to promote the policy incorporated in CERCLA Section 124. Recognizing the chilling effect that potential CERCLA liability might otherwise have on landfill gas collection or processing activities, the EPA interprets CERCLA Section 124 in a manner that will encourage the beneficial recovery of methane. Specifically, EPA believes that Congress intended Section 124 to provide liability protection to owners and operators of equipment for the recovery or processing of methane with respect to all phases involved in landfill gas collection and methane processing. This includes any assistance (related to recovery or processing of methane) provided by the landfill gas equipment owner or operator to the landfill owner/operator for achieving compliance with the emission standards promulgated today or similar Federal, State, or local controls on landfill emissions. In general, Section 124 will be interpreted in a manner to provide owners and operators of equipment for the recovery or processing of methane with comprehensive protection from CERCLA liability, unless the release or threatened release was primarily caused by activities of the owners and operators of the equipment, or unless such owners or operators would be otherwise liable under CERCLA.

B. Energy and Economic Impacts of Promulgated Action

The energy and economic impacts are summarized in chapter 1 and fully discussed in chapter 3 and appendix A of the promulgation BID (EPA-453/R-94-021). The estimated impacts have changed somewhat as a result of changes in the final rules and changes in the impacts estimation methodology made in response to public comments.

1. Energy Impacts

Affected and designated landfills with NMOC emission rates of 50 Mg/yr or more are required to install a gas collection system and control device. The gas collection system would require a relatively small amount of energy to run the blowers and the pumps. If a flare is used for control, auxiliary fuel should not be necessary because of the high heat content of LFG, commonly 1.86×10^7 J/scm or more. If a recovery device such as an internal combustion (I.C.) engine or a gas turbine is used, an energy savings would result.

The EPA evaluated the overall energy impacts resulting from the use of flares, I.C. engines, or gas turbines for control of collected emissions at all affected landfills. The least cost control option was identified by taking the NPV costs of the three control options (flares, I.C. engines, and turbines), including any cost savings from the use of recovered landfill gas, and determining the option that costs the least. If landfills use the least cost control device, it is estimated that the NSPS will produce $170 million of energy revenue as NPV in 1992. The EG are estimated to generated $1.5 billion of energy revenue as NPV in 1992, if the least cost control device is used.

2. Control Costs and Economic Impacts

Nationwide annualized costs for collection and control of air emissions from new MSW landfills are estimated to be $4 million. The nationwide cost of the EG would be approximately $90 million. These values are annualized costs. Tables 1 and 2 present costs in both annualized and NPV values. In comparison to other solid waste-related rules, the nationwide costs of the recently promulgated RCRA Subtitle D (40 CFR 257 and 258) rule are estimated to be $300 million per year and the estimated nationwide costs of the MWC rules promulgated in 1991 are estimated to be $170 million per year for new combustors and $302 million per year for existing combustors (56 FR 5488 and 5514).

The incremental costs and benefits of the different options are presented in tables 3, 4, 5, and 6 in section VIII.E. For NMOC, the average cost effectiveness is approximately $1,200/Mg for both the NSPS and the EG. Preliminary economic analysis indicates that the annual cost of waste disposal may increase by an average of approximately $0.60 per Mg for the NSPS and $1.30 per Mg for the EG. Costs per household would increase approximately $2.50 to $5.00 per year, when the household is served by a new or existing landfill, respectively. Additionally, less than 10 percent of the households would face annual increases of $15 or more per household as a result of the final EG. However, the EPA anticipates that many landfills will elect to use energy recovery systems, and costs per household for those areas would be less. The EPA has concluded that households would not incur severe economic impacts. For additional information, please refer to the regulatory impact analysis (Docket No. A-88-09, Item No. IV-A-7) and chapter 3 of the promulgation BID (EPA-453/R-94-021).

VI. Significant Changes to the Proposed Standards and Emission Guidelines

All of the significant public comments received on the proposed standards and EG and the Notice of Data Availability are addressed in the promulgation BID (EPA-453/R-94-021). This section of the preamble reviews the major changes to the standards and EG resulting from public comments. A more detailed rationale for these changes is provided in chapters 1 and 2 of the promulgation BID (EPA-453/R-94-021).

A. Design Capacity Exemption

A design capacity exemption of 100,000 Mg was included in the proposed NSPS and EG to relieve owners and operators of small landfills that the EPA considered unlikely to emit NMOC above the emission rate cutoff requiring control from undue recordkeeping and reporting responsibilities. Commenters indicated that the exemption level was too low, and would still impact many small businesses and municipalities. In response to these comments and as a result of changes to the nationwide impacts analysis, the design capacity exemption in the final NSPS was revised to 2.5 million Mg. The 2.5 million Mg exemption level would exempt 90 percent of the existing landfills while only losing 15 percent of the total NMOC emission reduction. Most of the exempt landfills are owned

by municipalities. The 2.5 million Mg level was chosen to relieve as many small businesses and municipalities as possible from the regulatory requirements while still maintaining significant emission reduction.

This cutoff excludes those landfills who would be least able to afford the costs of a landfill gas collection and control system and are less likely to have successful energy recovery projects. However, depending on site-specific factors including landfill gas characteristics and local markets, some landfills smaller than the design capacity exemption level may be able to make a profit by installing collection and control systems that recover energy. While the rule does not require control of landfills smaller than 2.5 million Mg, the EPA encourages energy recovery in cases where it is profitable. The EPA has developed a Landfill Methane Outreach Program to encourage more widespread utilization of landfill gas as an energy source. Information can be obtained by calling the Landfill Methane Outreach Program Hotline at (202) 233–9042. Available publications are identified in section 1.2.1 of the promulgation BID.

Since some landfills record waste by volume and have their design capacities calculated in volume, the EPA also established an equivalent design capacity exemption of 2.5 million m^3 of waste. The density of solid waste within different landfills varies depending on several factors, including the compaction practices. Any landfill that reports waste by volume and wishes to establish a mass design capacity must document the basis for their density calculation.

B. Emission Rate Cutoff

Some commenters asserted that the proposed emission rate cutoff of 150 Mg/yr should be made more stringent, while others favored the proposal cutoff or higher. The commenters favoring the more stringent level indicated that the EPA's data on NMOC concentration, the benefits of energy recovery and reduced global warming, and the reduced health risks all supported an increased stringency level.

The Climate Change Action Plan, signed by the President in October, 1993, calls for EPA to promulgate a "tough" landfill gas rule as soon as possible. This initiative also supports a more stringent emission rate cutoff that will achieve greater emission reduction.

Due to the small-size exemption, only landfills with design capacities greater than 2.5 million Mg of waste or 2.5 million cubic meters of waste will be affected by this rule. It is estimated that a landfill of 2.5 million Mg design capacity corresponds to cities greater than about 125,000 people. On the whole, large landfills service areas with large population. A reasonable assumption is that many of these large landfills are in the 400 counties that have been designated as urban ozone nonattainment areas and are developing plans to address ozone nonattainment.

Finally, the new data and modeling methodologies, which were published in the Notice of Data Availability on June 21, 1993, significantly reduced the emission reduction and corresponding effectiveness of the rule. Therefore, a more stringent emission rate cutoff would achieve similar emission reductions at similar cost effectiveness to the proposed rule.

Based on all of these reasons, the EPA reevaluated the stringency level and chose an emission rate cutoff of 50 Mg/yr of NMOC for the final rules. This revision would affect more landfills than the proposal value of 150 Mg/yr of NMOC; however, the 50 Mg/yr of NMOC will only affect less than 5 percent of all landfills and is estimated to reduce NMOC emissions by approximately 53 percent and methane emissions by 39 percent. The 150 Mg/yr emission rate cutoff would have reduced NMOC emissions by 45 percent and methane emissions by 24 percent. The incremental cost effectiveness of control of going from a 150 Mg/yr cutoff level to a 50 Mg/yr cutoff level is $2,900/Mg NMOC reduction for new landfills and $3,300/Mg for existing landfills.

The values for NMOC cost effectiveness do not include any credit for the benefits for toxics, odor, explosion control, or the indirect benefit of methane control. A revised cost effectiveness could be calculated with an assumed credit value for one or more of the other benefits. As an example, assuming a $30/Mg credit for the methane emission reduction, the incremental cost effectiveness from the proposal cutoff of 150 Mg/yr to the final cutoff of 50 Mg/yr would be reduced to $660/Mg NMOC.

C. Collection System Design Specifications

Commenters indicated that the proposed design specifications for the collection system were overly prescriptive, discouraged innovation, and did not prevent off-site migration of LFG. In the new § 60.759 for design specifications, certain criteria still require proper landfill gas collection; however, the proposed design specifications for the LFG collection system were removed from the final regulations. Instead, the final rule allows sources to design their own collection systems. Design plans must meet certain requirements and be signed by a registered professional engineer, and are subject to agency approval. These changes were made to provide flexibility and encourage technological innovation.

D. Timing for Well Placement

The proposed regulations required the installation of collection wells at applicable landfills within 2 years of initial waste placement. Commenters indicated that the installation of wells within 2 years was not practiced at many landfills, because many cells were still active (receiving waste) 2 years after initial placement. Collection wells installed at these cells would have to be covered over, which would decrease the operational life of the well and be costly and inefficient.

The proposed timing for the placement of collection wells has been revised to reduce costs and better coincide with common operational practices at MSW landfills. The final regulation allows for well installation up to 5 years from initial waste placement for active cells. An area that reaches final grade or closure must install collection wells within 2 years of initial waste placement.

E. Operational Standards

In response to commenters concerns about the operation of collection systems, the final NSPS contains a new section, § 60.753, "Operational Standards for Collection and Control Equipment." Various operational provisions that had previously been located throughout the proposed rule have been organized under this one section, and new provisions on collection and control systems have been added. The new section addresses the following areas: (1) Collection of gas from active areas containing solid waste older than 5 years (changed from 2 years at proposal); (2) operation of the collection system with negative pressure at each wellhead (except as noted in the rule); (3) operation of the collection system with a landfill temperature less than 55° (or a higher established temperature) and either an N_2 level less than or equal to 20 percent or an O_2 level less than or equal to 5 percent; (4) operation of the collection system with a surface concentration less than 500 ppm methane; (5) venting all collected gases to a treatment or control device; and (6) operation of the treatment or control device at all times when the collected gas is routed to the control device. The numerical requirements (for the N_2 or O_2 levels, landfill temperature,

and surface concentration) are new requirements that will verify that the system is being adequately operated and maintained. In conjunction with the new operational provisions, the compliance, testing and monitoring sections were revised to reference and support these new or relocated provisions.

F. Surface Emission Monitoring

Numerous commenters asserted that the proposed rules did not address surface methane emissions resulting from insufficient well spacing or from breaks in the cover material. The commenters recommended that monitoring of surface emissions be required to ensure the proper operation of collection system equipment. Upon further analysis, the EPA decided to require surface emission monitoring and the maintenance of negative pressure at all wells, except under specified conditions, to ensure proper collection system design and operation. Based on information submitted by commenters, a maximum surface concentration of 500 ppm methane should be demonstrated to indicate proper operation of the collection system. Monitoring is to be done quarterly, with provisions for increasing monitoring and corrective procedures if readings above 500 ppm are detected. Instrumentation specifications, monitoring frequencies, and monitoring patterns have been structured to provide clear and straight-forward procedures that are the minimum necessary to assure compliance.

G. Model Default Values

The EPA received additional data after proposal on the model defaults that were included in the tier system calculations. These default values are used to calculate whether the NMOC concentration is above the cutoff level for control requirements of 50 Mg/yr. The new information received lead the EPA to revise the default values for the site-specific methane generation rate constant (k), the methane generation potential (L_o), and the NMOC concentration (C_{NMOC}). In the absence of site-specific data, the landfill owner or operator would use the default values for k, L_o, and C_{NMOC} in order to estimate the annual NMOC emission rate. More information on the model defaults may be found in the final BID (EPA-453/R-94-021) and the memorandum "Documentation of Small-Size Exemption Cutoff Level and Tier 1 Default Values (Revised)," October 21, 1993, (Docket No. A-88-09, Item No. IV-B-5).

The Tier 1 default values of k, Lo, and C_{NMOC} tend to overstate NMOC emission rates for most landfills, and are intended to be used to indicate the need to install a collection and control system or perform a more detailed Tier 2 analysis. It is recommended that these default values not be used for estimating landfill emissions for purposes other than the NSPS and EG. The EPA document "Compilation of Air Pollution Emission Factors" (AP-42) provides emission estimation procedures and default values that can be used for emissions inventories and other purposes.

VII. Permitting

A. New Source Review Permits

Today's rulemaking under section 111(b) establishes a new classification of pollutants subject to regulation under the CAA: "MSW landfill emissions." Therefore, PSD rules now apply to all subject stationary sources which have increases in landfill gas above the significance level, 50 tpy or more of NMOC. Landfills below the 2.5 million Mg design capacity exemption, which are not required by the regulations to install controls, may exceed this significance level. In this case, the State will need to determine if controls should be installed for purposes of PSD or NSR compliance.

The proposed significance level for MSW landfill emissions of 40 tpy of NMOC was changed to 50 tpy after consideration of public comments. The PSD significance level for VOC emissions is 40 tpy. At proposal, the landfill gas emission level was set at 40 tpy of NMOC to be consistent with the 40 tpy level for VOC. However, NMOC contains organic compounds that are not VOC. An NMOC emission rate of roughly 50 tpy corresponds to a VOC emission rate of 40 tpy.

The components of MSW landfill emissions that are regulated as pollutants or precursors of an air pollutant listed under section 108 of the CAA are also regulated by other provisions of CAA as applicable. For example, the components of MSW landfill emissions that are emitted as photochemically reactive VOCs are regulated, as applicable, under the nonattainment provisions for ozone contained in part D of title I of the CAA.

B. Operating Permits

Section 502 of the CAA and § 70.3(a) require any source subject to standards or regulations under section 111 of the CAA to obtain part 70 operating permits. However, landfills below 2.5 million Mg design capacity are not subject to standards under section 111 because they are not required to put on controls and are not subject to emission limits. These landfills are subject to a reporting requirement under the section 111 rule; however, this requirement determines applicability of the standard and does not make them "subject" for the purposes of part 70. Consequently, landfills below 2.5 million Mg design capacity are not subject to part 70, provided they are not major sources; and this is stated in § 60.752(a) of the rule. If landfills below 2.5 million Mg design capacity are major sources, they must obtain a part 70 permit under the same deadlines and requirements that apply to any other major source. States may request additional information to verify whether landfills have the potential to emit at major source levels.

For landfills above the 2.5 million Mg design capacity exemption, part 70 operating permits are required. These landfills are subject to emission limits and will most often be major sources. Since landfill emissions increase over time, a landfill over 2.5 million Mg may not be major in the beginning; however, as the landfill progresses to capacity, it may become major. Many of the landfills above the 2.5 million Mg exemption will be required to collect and control the gas under the regulation. The issuance of a permit will also help enforce and implement the standard. Therefore, the EPA has decided to require permits for all landfills with design capacities above 2.5 million Mg, whether or not the landfill will be required to install a collection and control system.

The regulation also provides for termination of operating permits. Landfill emissions, unlike emissions from other source categories, decrease over time after the landfill is closed. If a landfill has closed and a control system was never required or the conditions for control system removal specified in the regulation have been met, an operating permit is no longer necessary.

VIII. Administrative Requirements

A. Docket

The docket (Docket No. A-88-09) is an organized and complete file of all the information considered by the EPA in the development of this rulemaking. The docket is a dynamic file, since material is added throughout the rulemaking development. The docketing system is intended to allow members of the public and industries involved to readily identify and locate documents so that they can effectively participate in the rulemaking process. Along with

the statement of basis and purpose of the proposed and promulgated standards and the EPA responses to significant comments, the contents of the docket, except for interagency review materials, will serve as the record in case of judicial review [section 307(d)(7)(A)].

B. Paperwork Reduction Act

The information collection requirements in this rule have been submitted for approval to the Office of Management and Budget (OMB) under the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. An Information Collection Request (ICR) document has been prepared by the EPA (ICR No. 1557.03) and a copy may be obtained from Sandy Farmer, OPPE Regulatory Information Division; U.S. Environmental Protection Agency (2137); 401 M St., S.W.; Washington, DC 20460, or by calling (202) 260-2740. The information requirements are not effective until OMB approves them.

The information required to be collected by this rule is necessary to identify the regulated entities who are subject to the rule and to ensure their compliance with the rule. The recordkeeping and reporting requirements are mandatory and are being established under authority of section 114 of the Act. All information submitted as part of a report to the Agency for which a claim of confidentiality is made will be safeguarded according to the Agency policies set forth in title 40, chapter 1, part 2, subpart B—Confidentiality of Business Information (see 40 CFR 2; 41 FR 36902, September 1, 1976, amended by 43 FR 39999, September 28, 1978; 43 FR 42251, September 28, 1978; 44 FR 17674, March 23, 1979).

The total annual reporting and recordkeeping burden for this collection, averaged over the first 3 years of the NSPS applicability to new MSW landfills, is estimated to be 3,379 person hours per year. This is the estimated burden for 299 respondents (e.g., MSW landfill owners/operators) per year, at an estimated annual reporting and recordkeeping burden averaging 11.3 hours per respondent. The rule requires an initial one-time notification of landfill design capacity. If the landfill is larger than the design capacity cutoff, annual reports are required. The capital cost to purchase required monitoring equipment is $8,100 per monitor. The total annualized capital and startup costs for purchase of monitoring equipment are $80,250. The total national annual cost burden including all labor costs and annualized capital costs for recordkeeping and reporting is $188,850.

Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

C. Executive Order 12866

Under Executive Order 12866, (58 FR 51735 (October 4, 1993)) the EPA must determine whether the regulatory action is "significant" and therefore subject to OMB review and the requirements of the Executive Order. The Order defines "significant regulatory action" as one that is likely to result in a rule that may: (1) Have an annual effect on the economy of $100 million or more or adversely effect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or Tribal governments or communities; (2) create a serious inconsistency or otherwise interfere with an action taken or planned by another agency; (3) materially alter the budgetary impact of entitlement, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or (4) raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles met forth in the Executive Order.

Pursuant to the terms of Executive Order 12866, this action was submitted to OMB for review. Changes made in response to OMB suggestions or recommendations are documented in the public record.

D. Executive Order 12875

To reduce the burden of Federal regulations on States and small governments, the President issued E.O. 12875 on October 26, 1993. Under E.O. 12875, the EPA is required to consult with representatives of affected State, local, and tribal governments. Because this regulatory action imposes costs to the private sector and government entities in excess of $100 million per year, the EPA pursued the preparation of an unfunded mandates statement, consultations, and other requirements of the Unfunded Mandates Reform Act. The requirements are met as presented under the following unfunded mandates section (section VIII.E of this notice).

E. Unfunded Mandate Reform Act

Under section 202 of the Unfunded Mandates Reform Act of 1995 ("Unfunded Mandates Act"), signed into law on March 22, 1995, the EPA must prepare a statement to accompany any rule where the estimated costs to State, local, or tribal governments, or to the private sector, will be $100 million or more per year. Section 203 requires the Agency to establish a plan for informing and advising any small governments that may be significantly or uniquely affected by the rule. Section 204 requires that the Agency "to the extent permitted in law, develop an effective process to permit elected officers of State, local, and tribal governments * * * to provide meaningful and timely input in the development of regulatory proposals containing significant Federal intergovernmental mandates". Under section 205(a), the EPA must select the "least costly, most cost-effective or least burdensome alternative that achieves the objectives of the rule" and is consistent with statutory requirements.

The unfunded mandates statement under section 202 must include: (1) A citation of the statutory authority under which the rule is proposed, (2) an assessment of the costs and benefits of the rule including the effect of the mandate on health, safety and the environment, and the Federal resources available to defray the costs, (3) where feasible, estimates of future compliance costs and disproportionate impacts upon particular geographic or social segments of the nation or industry, (4) where relevant, an estimate of the effect on the national economy, and (5) a description of the EPA's consultation with State, local, and tribal officials.

Because this rule is estimated to impose costs to the private sector and governments entities in excess of $100 million per year (based on tenth or fifteenth year annualized values), it is considered a significant regulatory action.

The EPA has thus prepared the following statement with respect to sections 202 through 205 of the Unfunded Mandates Act.

1. Statutory Authority

As discussed in section II of this preamble, the statutory authority for this rulemaking is section 111 of the CAA. The rule establishes emission guidelines

for existing MSW landfills and standards of performance for new MSW landfills. Section 111(a)(1) of the requires that standards of performance for new sources reflect the—

* * * degree of emission limitation and the percentage reduction achievable through application of the best technological system of continuous emission reduction which (taking into consideration the cost of achieving such emission reduction, any nonair quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated.

Section 111(d) requires emission guidelines for existing sources to reflect a similar degree of emission reduction.

These systems are referred to as BDT for new and existing sources.

Properly operated gas collection and control systems achieving 98 percent emission reduction have been demonstrated on landfills of the size affected by the standards and EG, and represent BDT. Control technologies and their performance are discussed in the preamble to the proposed rules (56 FR 24476, May 30, 1991).

In selecting BDT, the EPA also considered which landfills should be required to apply collection and control systems. A range of landfill design capacity and emission rate cutoffs were evaluated, as described below in section 2.b "Regulatory Alternatives Considered." The promulgated standards contain a design capacity exemption of 2.5 million Mg or 2.5 million cubic meters and an emission rate cutoff of 50 Mg NMOC/yr.

The EPA considered emission reduction, costs, and energy requirements, as required by the statutory language of section 111 of the CAA, in selecting the promulgated standards and EG. The promulgated standards represent BDT. They achieve significant reductions in landfill gas emissions—a 53 percent reduction in NMOC emissions, and a 39 percent reduction in methane reduction emissions nationwide. The cost impacts of the standards are presented in section V.B and in section VII.E.2 (below). The public entities and affected industries who were consulted, as required by the Unfunded Mandates Reform Act, understand the cost impacts and support the final rules (see Section 4, "Consultation with Government Officials" below). The energy impacts are discussed in section V.B of this notice. To the extent energy recovery devices are used to comply with the rules, the rules will result in a net energy savings (production of energy).

Compliance with section 205(a): Regarding the EPA's compliance with section 205(a), the EPA did identify and consider a reasonable number of alternatives, and presents a summary of these below. The EPA has chosen to adopt the alternative with a size cutoff of 2.5 million Mg capacity, and 50 Mg/yr emissions. The incremental cost effectiveness of this 50 Mg/yr option is $6,250 per ton of NMOC reduced (versus the less stringent 75 Mg/yr option). This cost effectiveness is much higher than is typical for NMOC (or VOC) controls in NSPSs. However, the EPA also considers the reductions in methane achieved by this 50 Mg/yr option as necessary to "achieve the objectives" of section 111. The additional methane reductions achieved by this option are also an important part of the total carbon reductions identified under the Administration's 1993 Climate Change Action Plan. The EPA thus concludes that the chosen alternative is the most cost-effective to achieve the objectives of section 111, as called for in section 205(a).

2. Social Costs and Benefits

This assessment of the cost and benefits to State, local, and tribal governments of the guidelines is based on EPA's "Economic Impact Analysis for Proposed Emission Standards and Guidelines for Municipal Solid Waste Landfills" and updates to the analysis contained in "Air Emissions from Municipal Solid Waste Landfills—Background Information for Final Standards and Guidelines" (EPA-453/R-94-021). Measuring the social costs of the guidelines requires identification of the affected entities by ownership (public or private), consideration of regulatory alternatives, calculation of the regulatory compliance costs for each affected entity, and assessment of the market implications of the additional pollution control costs. Considering the social benefits of the guidelines requires estimating the anticipated reductions in emissions at MSW landfills due to regulation and identifying the harmful effects of exposure to MSW landfill emissions. Quantitative valuation of the expected benefits to society was not done for this rule.

a. *Affected Entities.* The standards of performance for new sources will require control of approximately 43 new landfills constructed in the first 5 years the standards are in effect. The EG will require control of approximately 312 existing landfills. This represents less than 5 percent of the total number of landfills in the U.S.

Of the landfills required to install controls, about 30 percent of the existing landfills and 20 percent of the new landfills are privately owned. The remainder are publicly owned. (These percentages are taken from section 3.2.1 of the promulgation BID (EPA-453/R-94-021). While that analysis used a design capacity exemption level of 1 million Mg rather than the 2.5 million Mg exemption level contained in the final rule, the percentage of private versus publicly owned landfills would be similar.

b. *Regulatory Alternatives Considered.* Under section 205 of the Unfunded Mandates Act, the Agency must identify and consider a reasonable number of regulatory alternatives before promulgating a rule for which a budgetary impact statement must be prepared. The Agency must select from those alternatives the least costly, most cost-effective, or least burdensome alternative that achieves the objectives of the rule, unless the Agency explains why this alternative is not selected or the selection of this alternative is inconsistent with the law.

A number of alternatives were considered. These included design capacity exemption levels of 1, 2.5, and 3 million Mg and emission rate cutoffs of 50, 75, 100, and 150 Mg/year. Table 3 presents the impacts of alternative design capacity exemption levels for existing landfills. Table 4 presents the impacts of alternative emission rate cutoffs for existing landfills. Tables 5 and 6 present alternative design capacity exemption levels and emission rate cutoffs for new landfills.

TABLE 3.—ALTERNATIVE DESIGN CAPACITY EXEMPTION LEVEL OPTIONS FOR THE EMISSION GUIDELINES [a,b]

Small size cutoff (millions Mg)	Number landfills affected	Annual [c] NMOC emission reduction (Mg/yr)	Annual [d] methane emission reduction (Mg/yr)	Annual cost (million $/yr)	NMOC average cost eff. ($/Mg)	NMOC Incremental cost eff. ($/Mg)
Baseline [e]						
3,000,000	273	73,356	3,220,000	84	1,145	1,145

TABLE 3.—ALTERNATIVE DESIGN CAPACITY EXEMPTION LEVEL OPTIONS FOR THE EMISSION GUIDELINES [a,b]—Continued

Small size cutoff (millions Mg)	Number landfills affected	Annual [c] NMOC emission reduction (Mg/yr)	Annual [d] methane emission reduction (Mg/yr)	Annual cost (million $/yr)	NMOC average cost eff. ($/Mg)	NMOC Incremental cost eff. ($/Mg)
2,500,000	312	77,600	3,370,000	89	1,147	1,178
1,000,000	572	97,600	3,990,000	119	1,219	1,500
No cutoff [f]	7,299	142,000	8,270,000	719	5,063	13,514

[a] Emission rate cutoff level of 50 Mg NMOC/yr.
[b] All values are fifth year annualized.
[c] NMOC emission reductions are from a baseline of 145,000 Mg NMOC/yr.
[d] Methane emission reductions are from a baseline of 8,400,000 Mg methane/yr.
[e] In the absence of an emission guidelines.
[f] No emission rate cutoff and no design capacity exemption level.

TABLE 4.—ALTERNATIVE NMOC EMISSION RATE STRINGENCY LEVEL OPTIONS FOR THE EMISSION GUIDELINES [a,b]

Emission rate cutoff (Mg NMOC/yr)	Number landfills affected	Annual [c] NMOC emission reduction (Mg/yr)	Annual [d] methane emission reduction (Mg/yr)	Annual cost (million $/yr)	NMOC average cost eff. ($/Mg)	NMOC Incremental cost eff. ($/Mg)
Baseline [e].						
150	142	66,600	2,210,000	51	766	766
100	201	72,700	2,720,000	66	908	2,459
75	250	76,000	3,080,000	79	1,039	3,939
50	312	77,600	3,370,000	89	1,147	6,250
No cutoff [f]	7,299	142,000	8,270,000	719	5,063	9,783

[a] Design capacity exemption level of 2,500,000 Mg of refuse.
[b] All values are fifth year annualized.
[c] NMOC emission reductions are from a baseline of 145,000 Mg NMOC/yr.
[d] Methane emission reductions are from a baseline of 8,400,000 Mg methane/yr.
[e] In the absence of an emission guidelines.
[f] No emission rate cutoff and no design capacity exemption level.

TABLE 5.—ALTERNATIVE DESIGN CAPACITY EXEMPTION LEVEL OPTIONS FOR THE NEW SOURCE PERFORMANCE STANDARDS [a, b]

Small size cutoff (millions Mgr)	Number landfills affected	Annual [c] NMOC emission reduction (Mg/yr)	Annual [d] methane emission reduction (Mg/yr)	Annual [e] cost (million $/yr)	NMOC average cost eff. ($/Mg)	NMOC [f] Incremental cost eff. ($/Mg)
Baseline [g].						
3,000,000	41	4,900	193,000	4	816	N/A
2,500,000	43	4,900	193,000	4	816	N/A
1,000,000	89	4,900	193,000	4	816	N/A
No cutoff [h]	872	13,115	881,000	81	6,176	N/A

[a] Emission rate cutoff level of 50 Mg NMOC/yr.
[b] All values are fifth year annualized.
[c] NMOC emission reductions are from a baseline of 13,400 Mg NMOC/yr.
[d] Methane emission reductions are from a baseline of 899,000 Mg methane/yr.
[e] Due to rounding off to the nearest million dollar, cost values do not appear to change for each option. However, actual costs are slightly less for a less stringent option.
[f] Because the annual cost does not change enough to show a different cost from one option to the next, incremental cost effectiveness values are not applicable.
[g] In the absence of a standard.
[h] No emission rate cutoff and no design capacity exemption level.

TABLE 6.—ALTERNATIVE NMOC EMISSION RATE STRINGENCY LEVEL OPTIONS FOR THE NEW SOURCE PERFORMANCE STANDARDS [a,b]

Emission rate cutoff (Mg NMOC/yr)	Number landfills affected	Annual [c,d] NMOC emission reduction (Mg/yr)	Annual [c,e] methane emission reduction (Mg/yr)	Annual [f] cost (million $/yr)	NMOC average cost eff. ($/Mg)	NMOC [g] Incremental cost eff. ($/Mg)
Baseline [h].						
150	14	5,200	187,000	4	769	NA
100	25	5,100	203,000	4	784	NA
75	33	5,000	194,000	4	800	NA

TABLE 6.—ALTERNATIVE NMOC EMISSION RATE STRINGENCY LEVEL OPTIONS FOR THE NEW SOURCE PERFORMANCE STANDARDS [a,b]—Continued

Emission rate cutoff (Mg NMOC/yr)	Number landfills affected	Annual [c,d] NMOC emission reduction (Mg/yr)	Annual [c,e] methane emission reduction (Mg/yr)	Annual [f] cost (million $/yr)	NMOC average cost eff. ($/Mg)	NMOC [g] Incremental cost eff. ($/Mg)
50	43	4,900	193,000	4	816	NA
No Cutoff [i]	872	13,115	881,000	81	6,176	NA

[a] Design capacity exemption level of 2,500,000 Mg of refuse.
[b] All values are fifth year annualized.
[c] Because of the small number of landfills and the longer time period of control for a given landfill at a more stringent option, the average annual emission reduction appears to decrease for a more stringent option. However, the emission reduction for a given year increase for more stringent options.
[d] NMOC emission reductions are from a baseline of 13,400 Mg NMOC/yr.
[e] Methane emission reductions are from a baseline of 899,000 Mg NMOC/yr.
[f] Due to rounding off to the nearest million dollar, cost values do not appear to change for each option. However, actual costs are slightly less for a less stringent option.
[g] Because the annual cost does not change enough to show a different cost from one option to the next, incremental cost effectiveness values are not applicable.
[h] In the absence of a standard.
[i] No emission rate cutoff and no design capacity exemption level.

The design capacity cutoff of 2.5 million Mg or 2.5 million cubic meters was chosen as a result of changes to the nationwide impacts analysis and to relieve as many small businesses and municipalities as possible from the regulatory requirements while still maintaining significant emission reduction. The 2.5 million Mg cutoff level exempts landfills that serve populations of less than about 125,000 people from periodic reporting and control requirements. This cutoff excludes those landfills who would be least able to afford the costs of a landfill gas collection and control system. A less stringent design capacity exemption level (e.g., 3 million Mg) was not selected because it would result in less emissions reductions. A more stringent design capacity exemption level (e.g., 1 million Mg) was not selected because it would increase the number of landfills required to apply control by over 80 percent (572 vs. 312 existing landfills) while only achieving an additional 25 percent NMOC emission reduction (see table 3). It would also increase national costs and subject smaller government entities to the regulatory requirements, since smaller governments typically operate smaller landfills.

The emission rate cutoff of 50 Mg/yr of NMOC was chosen because, in conjunction with the 2.5 million Mg design capacity cutoff, it will require control of less than 5 percent of all landfills, yet is estimated to reduce NMOC emissions by approximately 53 percent and methane emissions by 39 percent. The Climate Change Action Plan, signed by the President in October 1993, calls for the EPA to promulgate a "tough" landfill gas rule as soon as possible.

The average cost effectiveness is about $1,150/Mg NMOC (see table 4). While the incremental cost effectiveness for NMOC control of going from a cutoff of 75 Mg/yr to a 50 Mg/yr cutoff is high ($6,250/Mg NMOC), this value does not include any credit for the benefits of toxics, odor, explosion control, or the indirect benefit of methane control. The economic analysis indicated that the final rule (including the 50 Mg/yr cutoff level) would cause a relatively small increase in waste disposal costs compared to the current costs and would not result in severe economic impacts on households (see section C. "Social Costs" below).

A more stringent option (e.g., no cutoff) was not chosen because the average and incremental cost and cost effectiveness was not reasonable (see table 4). Less stringent emission rate cutoff levels were not chosen because they result in less NMOC and methane reduction, and would not be consistent with the section 111 statutory requirement to base emission standards on BDT.

The public entities with whom the EPA consulted understood the EPA's concerns regarding the loss of emission reductions by changing the proposed capacity exemption level from 100,000 Mg to 5 million Mg and agreed that 2.5 million relieved 90 percent of the landfills from the burden of regulation and was reasonable.

c. *Social Costs.* The regulatory compliance costs of reducing air emissions from MSW landfills include the total and annualized capital costs; operating and maintenance costs; monitoring, inspection, recordkeeping, and reporting costs; and total annual costs. The annualized capital cost is calculated using a 7 percent discount rate. The total annual cost is calculated as the sum of the annualized capital cost; operating and maintenance costs; and the monitoring, inspection, recordkeeping, and reporting costs.

The total nationwide annualized cost for collection and control of air emissions from new MSW landfills are estimated to be $4 million. The nationwide costs of the EG for existing landfills is estimated to be about $90 million. The annual cost of waste disposal is estimated to increase by an average of $0.60/Mg for the NSPS and $1.30/Mg for the EG. Costs per household would increase by approximately $2.50 to $5.00 per year for households served by a new or existing landfill, respectively, that is required to install a collection and control system. Because the rule requires control of only about 5 percent of the landfills in the U.S. many households would experience no increase in disposal costs. Furthermore, if affected landfills choose to use energy recovery systems, the cost per household in those areas would be less. The EPA has concluded that households would not incur severe economic impacts. For additional information, please refer to the regulatory impacts analysis (Docket No. A-88-09, Item IV-A-7) and chapter 3 of the promulgation BID (EPA-453/R-94-021). There are no Federal funds available to assist State and local governments in meeting these costs.

d. *Social Benefits.* Society will benefit from the NSPS and EG through the reduction of landfill gas emissions, including NMOC and methane reductions. The total nationwide annualized emission reduction of the EG is estimated to be 77,600 Mg/yr of NMOC and 3,370,000 Mg/yr of methane.

The total nationwide annualized emission reduction for the NSPS is about 4,900 Mg/yr of NMOC and 881,000 Mg/yr of methane.

The NMOC's present several hazards to human health. The NMOC's participate in chemical reactions leading to the formation of ozone, which causes health effects. Also, certain NMOC's have cancer risks and cause noncancer health effects.

Ozone is created by sunlight acting on NO_X and NMOC's in ambient air. Ozone leads to alterations in pulmonary function, aggravation of pre-existing respiratory disease, damage to lung structure, and adverse effects on blood enzymes, the central nervous system, and endocrine systems. Ozone also warrants control due to its welfare effects, specifically, reduced plant growth, decreased crop yield, necrosis of plant tissue, and deterioration of certain synthetic materials such as rubber (Docket No. A-88-09, Item Nos. II-A-26, II-I-16, etc.).

There is also concern about cancer risks from landfill NMOC emissions. In reviewing limited emissions data from MSW landfills, EPA identified both known and suspected carcinogens such as benzene, carbon tetrachloride, chloroform, ethylene dichloride, methylene dichloride, perchloroethylene, trichloroethylene, vinyl chloride, and vinylidene chloride. Prior to proposal, the EPA attempted to apply statistical methods to the limited data to generate the average annual increased cancer incidence and the maximum individual risk (MIR). In evaluating the result of the calculations for annual incidence and MIR, the EPA could not determine reasonable estimates of either an annual incidence or the MIR. The EPA concluded, at proposal, that the uncertainties in the database are too great to calculate credible estimates of the cancer risks associated with MSW landfills.

Another benefit of the NSPS and EG is reduced fire explosion hazard through reduction of methane emissions. The EPA has documented many cases of acute injury and death caused by explosions and fires related to municipal landfill gas emissions. In addition to these health effects, the associated property damage is a welfare effect. Furthermore, when the migration of methane and the ensuring hazard are identified, adjacent property values can be adversely affected (Docket No. A-88-09, Item Nos. II-I-6, II-I-7, etc.)

Another aspect of MSW landfill emissions is the offensive odor associated with landfills. While the nature of the wastes themselves contribute to the problem of odor, the gaseous decomposition products are often characteristically malodorous and unpleasant. Various welfare effects may be associated with odors, but due to the subjective nature of the impact and perception of odor, it is difficult to quantify these effects. Studies indicate that unpleasant odors can discourage capital investment and lower the socioeconomic status of an area. Odors have been shown to interfere with daily activities, discourage facility use, and lead to a decline in property values, tax revenues, and payroll (Docket No. A-88-09, Item Nos. II-I-6, II-I-7, etc.)

An ancillary benefit from regulating air emissions from MSW landfills is a reduction in the contribution of MSW landfill emissions to global emissions of methane. Methane is a major greenhouse gas, and is 20 to 30 times more potent than CO_2 on a molecule-per-molecule basis. This is due to the radiative characteristics of methane and other effects methane has on atmospheric chemistry. There is a general concern within the scientific community that the increasing emissions of greenhouse gases could lead to climate change, although the rate and magnitude of these changes are uncertain.

In conclusion, while the social benefits of the rule have not been quantified, significant health and welfare benefits are expected to result from the reduction in landfill gas emissions caused by the rule.

3. Effects on the National Economy

The Unfunded Mandates Act requires that the EPA estimate "the effect" of this rule—

> "on the national economy, such as the effect on productivity, economic growth, full employment, creation of productive jobs, and international competitiveness of the U.S. goods and services, if and to the extent that the EPA in its sole discretion determines that accurate estimates are reasonably feasible and that such effect is relevant and material."

As stated in the Unfunded Mandates Act, such macroeconomic effects tend to be measurable, in nationwide econometric models, only if the economic impact of the regulation reaches 0.25 to 0.5 percent of gross domestic product (in the range of $1.5 billion to $3 billion). A regulation with a smaller aggregate effect is highly unlikely to have any measurable impact in macroeconomic terms unless it is highly focused on a particular geographic region or economic sector. For this reason, no estimate of this rule's effect on the national economy has been conducted.

4. Consultation with Government Officials

The Unfunded Mandates Act requires that the EPA describe the extent of the EPA's consultation with affected State, local, and tribal officials, summarize the officials' comments or concerns, and summarize the EPA's response to those comments or concerns. These goals were addressed through meetings held with a number of public entities over the course of six months. Those entities included the US Conference of Mayors, the National League of Cities, the National Governor's Association, the National Association of Counties, and the Solid Waste Association of North America (SWANA). Through these meetings, these entities were informed of the rule, educated about it, and advised as to whether or not they would be impacted by it. These initial education and information sharing meetings were followed by meetings in which consultations and analysis of various alternatives took place. Documentation of all meetings and public comments can be found in Docket A-88-09.

Various concerns were discussed during the meetings. These concerns included: (1) The design capacity cutoff; (2) collection wells, their costing and installation requirements; (3) design specifications for collection systems; (4) well head nitrogen measurement of 20 percent; and (5) the surface monitoring requirements.

As a result of these consultations, the EPA decided to modify the final regulatory package to address these concerns. In the final regulatory package promulgated today: (1) The design capacity cutoff has been raised from the proposed level of 100,000 to 2.5 million Mg; (2) Changes were made to the way the costing algorithm calculates the number of vertical collection wells. The rule was also changed to require active areas to install wells 5 years from initial waste placement instead of 2 years. Closed areas or areas at final grade must install a collection system within 2 years; (3) Prescriptive design specifications have been removed from the rule and replaced with general criteria. The EPA is developing an Enabling Document to assist State and local permitting agencies in their review of designs; (4) Well head pressure monitoring can meet either 20 percent nitrogen or 5 percent oxygen; (5) Surface monitoring is to be done quarterly instead of monthly, not to exceed 500 ppm methane above background.

These changes were made in response to consultations held regarding burden of the regulation and as a result of new

data presented by the entities with whom the EPA met. A letter from the Solid Waste Management of North America and SWAC to the EPA demonstrates their support of this decision. Detailed summaries of the meetings and the letter can be obtained from the Docket A-88-09.

Documentation of the EPA's consideration of comments on the proposed standards and guidelines is provided in the BID's for the proposed and final standards and guidelines. Refer to the **ADDRESSES** section of this preamble for information on how to acquire copies of these documents.

The final rule reflects a minimization of burden on small landfills and does not create an unreasonable burden for large public entities. The EPA has considered the purpose and intent of the Unfunded Mandate Act and has determined the landfill NSPS and EG are needed.

F. Regulatory Flexibility Act

The Regulatory Flexibility Act (5 U.S.C. 601 et seq.) requires the EPA to give special consideration to the impact of regulation on small businesses, small organizations, and small governmental units. The Regulatory Flexibility Act specifies that EPA must prepare an initial regulatory flexibility analysis if a regulation will have a significant economic impact on a substantial number of small entities.

Pursuant to section 605(b) of the Regulatory Flexibility Act, 5 U.S.C. 605(b), the Administrator certifies that this rule will not have a significant economic impact on a substantial number of small entities.

The final NSPS and Eg exempt small landfills that have a design capacity below 2.5 million Mg of MSW. This design capacity exemption will exempt landfills that serve communities of 125,000 people or less, assuming the typical waste generation rate of 5 lb of waste per person per day and an average landfill age of 20 years. Section 601 of the Regulatory Flexibility Act defines a "small governmental jurisdiction" as governments of cities, counties, towns, or other districts with a population less than 50,000. The design capacity exemption will exempt landfills that serve small governmental jurisdictions. Therefore, the landfills NSPS and EG will have no impact on small entities.

The NSPS and EG will require periodic emissions calculations or control of emissions from only the largest 10 percent of landfills in the U.S. By controlling these large landfills, the rules will significantly reduce landfill gas emissions, which have adverse effects on human health and welfare, contribute to global warming, and can create odors and explosion hazards. In consideration of the potential regulatory burden on small entities and in response to public comment, the landfill design capacity in the proposed rule was raised to 2.5 million Mg/yr, thereby exempting small entities.

G. Miscellaneous

The effective date of this regulation is March 12, 1996. Section 111(b)(1)(B) of the CAA provides that standards of performance or revisions thereof become effective upon promulgation and apply to affected facilities of which the construction or modification was commenced after the date of proposal, May 31, 1991.

As prescribed by section 111, the promulgation of these standards was preceded by the Administrator's determination that MSW landfills contribute significantly to air pollution that may reasonably be anticipated to endanger public health or welfare. In accordance with section 117 of the CAA, publication of these promulgated standards was preceded by consultation with appropriate advisory committees, independent experts, and Federal departments and agencies.

This regulation will be reviewed 4 years from the date of promulgation as required by the CAA. This review will include an assessment of such factors as the need for integration with other programs, the existence of alternative methods, enforceability, improvements in emission control technology, and reporting requirements.

Section 317 of the CAA requires the Administrator to prepare an economic impact assessment for any NSPS promulgated under section 111(b) of the CAA. An economic impact assessment was prepared for this regulation and for other regulatory alternatives. All aspects of the assessment were considered in the formulation of the standards to ensure that cost was carefully considered in determining the BDT. The economic impact assessment is included in the BID for the proposed standards and in Chapter 3 of the promulgation BID.

List of Subjects

40 CFR Part 51

Environmental protection, Air pollution control.

40 CFR Part 52

Air pollution control.

40 CFR Part 60

Environmental protection, Air pollution control, Intergovernmental relations, reporting and recordkeeping requirements, Municipal solid waste landfills, Municipal solid waste.

Dated: March 1, 1996.

Carol M. Browner,

Administrator.

For the reasons set out in the preamble, title 40, chapter 1, parts 51, 52 and 60 of the Code of Federal Regulations are amended as follows:

PART 51—REQUIREMENTS FOR PREPARATION, ADOPTION AND SUBMITTAL OF IMPLEMENTATION PLANS

1. The authority citation for part 51 continues to read as follows:

Authority: 7401–7671q.

2. Section 51.166(b)(23)(i) is amended by adding an entry to the end of the *Pollutant and Emission Rate* list to read as follows:

§ 51.166 Prevention of significant deterioration of air quality.

* * * * *

(b) * * *

(23) * * *

(i) * * * Municipal solid waste landfill emissions (measured as nonmethane organic compounds): 45 megagrams per year (50 tons per year)

* * * * *

PART 52—APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS

3. The authority citation for part 52 continues to read as follows:

Authority: 42 U.S.C. 7401–7671q.

4. Section 52.21(b)(23)(i) is amended by adding an entry to the end of the *Pollutant and Emission Rate* list to read as follows:

§ 52.21 Prevention of significant deterioration of air quality.

* * * * *

(b) * * *

(23) * * *

(i) * * * Municipal solid waste landfills emissions (measured as nonmethane organic compounds): 45 megagrams per year (50 tons per year)

* * * * *

PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

5. The authority citation for part 60 continues to read as follows:

Authority: 42 U.S.C. 7401, 7411, 7414, 7416, and 7601.

6. Section 60.16 of subpart A is amended by adding an entry to the end to read under *Other Source Categories* as follows:

§ 60.16 Priority list.

* * * * *

Other Source Categories

* * * * *

Municipal solid waste landfills.[4]

* * * * *

7. Section 60.30 is amended by adding a new paragraph (c) to read as follows:

§ 60.30 Scope.

* * * * *

(c) Subpart Cc—Municipal Solid Waste Landfills.

8. Part 60 is further amended by adding the Subpart Cc to read as follows:

Subpart Cc—Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills

Sec.
60.30c Scope.
60.31c Definitions.
60.32c Designated facilities.
60.33c Emission guidelines for municipal solid waste landfill emissions.
60.34c Test methods and procedures.
60.35c Reporting and recordkeeping guidelines.
60.36c Compliance times.

Subpart Cc—Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills

§ 60.30c Scope.

This subpart contains emission guidelines and compliance times for the control of certain designated pollutants from certain designated municipal solid waste landfills in accordance with section 111(d) of the Act and subpart B.

§ 60.31c Definitions.

Terms used but not defined in this subpart have the meaning given them in the Act and in subparts A, B, and WWW of this part.

Municipal solid waste landfill or *MSW landfill* means an entire disposal facility in a contiguous geographical space where household waste is placed in or on land. An MSW landfill may also receive other types of RCRA Subtitle D wastes such as commercial solid waste, nonhazardous sludge, conditionally exempt small quantity generator waste, and industrial solid waste. Portions of an MSW landfill may be separated by access roads. An MSW landfill may be publicly or privately owned. An MSW landfill may be a new MSW landfill, an existing MSW landfill or a lateral expansion.

[4] Not prioritized, since an NSPS for this major source category has already been promulgated.

§ 60.32c Designated facilities.

(a) The designated facility to which the guidelines apply is each existing MSW landfill for which construction, reconstruction or modification was commenced before May 30, 1991.

(b) Physical or operational changes made to an existing MSW landfill solely to comply with an emission guideline are not considered a modification or reconstruction and would not subject an existing MSW landfill to the requirements of subpart WWW [see § 60.750 of Subpart WWW].

§ 60.33c Emission guidelines for municipal solid waste landfill emissions.

(a) For approval, a State plan shall include control of MSW landfill emissions at each MSW landfill meeting the following three conditions:

(1) The landfill has accepted waste at any time since November 8, 1987, or has additional design capacity available for future waste deposition;

(2) The landfill has a design capacity greater than or equal to 2.5 million megagrams or 2.5 million cubic meters. The landfill may calculate design capacity in either megagrams or cubic meters for comparison with the exemption values. Any density conversions shall be documented and submitted with the report; and

(3) The landfill has a nonmethane organic compound emission rate of 50 megagrams per year or more.

(b) For approval, a State plan shall include the installation of a collection and control system meeting the conditions provided in § 60.752(b)(2)(ii) of this part at each MSW landfill meeting the conditions in paragraph (a) of this section. The State plan shall include a process for State review and approval of the site-specific design plans for the gas collection and control system(s).

(c) For approval, a State plan shall include provisions for the control of collected MSW landfill emissions through the use of control devices meeting the requirements of paragraph (c)(1), (2), or (3) of this section, except as provided in § 60.24.

(1) An open flare designed and operated in accordance with the parameters established in § 60.18; or

(2) A control system designed and operated to reduce NMOC by 98 weight percent; or

(3) An enclosed combustor designed and operated to reduce the outlet NMOC concentration to 20 parts per million as hexane by volume, dry basis at 3 percent oxygen, or less.

§ 60.34c Test methods and procedures.

For approval, a State plan shall include provisions for: the calculation of the landfill NMOC emission rate listed in § 60.754, as applicable, to determine whether the landfill meets the condition in § 60.33c(a)(3); the operational standards in § 60.753; the compliance provisions in § 60.755; and the monitoring provisions in § 60.756.

§ 60.35c Reporting and recordkeeping guidelines.

For approval, a State plan shall include the recordkeeping and reporting provisions listed in §§ 60.757 and 60.758, as applicable, except as provided under § 60.24.

§ 60.36c Compliance times.

(a) Except as provided for under paragraph (b) of this section, planning, awarding of contracts, and installation of MSW landfill air emission collection and control equipment capable of meeting the emission guidelines established under § 60.33c shall be accomplished within 30 months after the effective date of a State emission standard for MSW landfills.

(b) For each existing MSW landfill meeting the conditions in § 60.33c(a)(1) and § 60.33c(a)(2) whose NMOC emission rate is less than 50 megagrams per year on the effective date of the State emission standard, installation of collection and control systems capable of meeting emission guidelines in § 60.33c shall be accomplished within 30 months of the date when the condition in § 60.33c(a)(3) is met (i.e., the date of the first annual nonmethane organic compounds emission rate which equals or exceeds 50 megagrams per year).

9. Part 60 is amended by adding a new subpart WWW to read as follows:

Subpart WWW—Standards of Performance for Municipal Solid Waste Landfills

Sec.
60.750 Applicability, designation of affected facility, and delegation of authority.
60.751 Definitions.
60.752 Standards for air emissions from municipal solid waste landfills.
60.753 Operational standards for collection and control systems.
60.754 Test methods and procedures.
60.755 Compliance provisions.
60.756 Monitoring of operations.
60.757 Reporting requirements.
60.758 Recordkeeping requirements.
60.759 Specifications for active collection systems.

Subpart WWW—Standards of Performance for Municipal Solid Waste Landfills

§ 60.750 Applicability, designation of affected facility, and delegation of authority.

(a) The provisions of this subpart apply to each municipal solid waste

landfill that commenced construction, reconstruction or modification or began accepting waste on or after May 30, 1991. Physical or operational changes made to an existing MSW landfill solely to comply with Subpart Cc of this part are not considered construction, reconstruction, or modification for the purposes of this section.

(b) The following authorities shall be retained by the Administrator and not transferred to the State: None.

§ 60.751 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act or in subpart A of this part.

Active collection system means a gas collection system that uses gas mover equipment.

Active landfill means a landfill in which solid waste is being placed or a landfill that is planned to accept waste in the future.

Closed landfill means a landfill in which solid waste is no longer being placed, and in which no additional solid wastes will be placed without first filing a notification of modification as prescribed under § 60.7(a)(4). Once a notification of modification has been filed, and additional solid waste is placed in the landfill, the landfill is no longer closed. A landfill is considered closed after meeting the criteria of § 258.60 of this title.

Closure means that point in time when a landfill becomes a closed landfill.

Commercial solid waste means all types of solid waste generated by stores, offices, restaurants, warehouses, and other nonmanufacturing activities, excluding residential and industrial wastes.

Controlled landfill means any landfill at which collection and control systems are required under this subpart as a result of the nonmethane organic compounds emission rate. The landfill is considered controlled at the time either

(1) A notification of intent to install a collection and control system or

(2) A collection and control system design plan is submitted in compliance with § 60.752(b)(2)(i).

Design capacity means the maximum amount of solid waste a landfill can accept, as specified in the construction or operating permit issued by the State, local, or Tribal agency responsible for regulating the landfill.

Disposal facility means all contiguous land and structures, other appurtenances, and improvements on the land used for the disposal of solid waste.

Emission rate cutoff means the threshold annual emission rate to which a landfill compares its estimated emission rate to determine if control under the regulation is required.

Enclosed combustor means an enclosed firebox which maintains a relatively constant limited peak temperature generally using a limited supply of combustion air. An enclosed flare is considered an enclosed combustor.

Flare means an open combustor without enclosure or shroud.

Gas mover equipment means the equipment (i.e., fan, blower, compressor) used to transport landfill gas through the header system.

Household waste means any solid waste (including garbage, trash, and sanitary waste in septic tanks) derived from households (including, but not limited to, single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas).

Industrial solid waste means solid waste generated by manufacturing or industrial processes that is not a hazardous waste regulated under Subtitle C of the Resource Conservation and Recovery Act, parts 264 and 265 of this title. Such waste may include, but is not limited to, waste resulting from the following manufacturing processes: electric power generation; fertilizer/agricultural chemicals; food and related products/by-products; inorganic chemicals; iron and steel manufacturing; leather and leather products; nonferrous metals manufacturing/foundries; organic chemicals; plastics and resins manufacturing; pulp and paper industry; rubber and miscellaneous plastic products; stone, glass, clay, and concrete products; textile manufacturing; transportation equipment; and water treatment. This term does not include mining waste or oil and gas waste.

Interior well means any well or similar collection component located inside the perimeter of the landfill. A perimeter well located outside the landfilled waste is not an interior well.

Landfill means an area of land or an excavation in which wastes are placed for permanent disposal, and that is not a land application unit, surface impoundment, injection well, or waste pile as those terms are defined under § 257.2 of this title.

Lateral expansion means a horizontal expansion of the waste boundaries of an existing MSW landfill. A lateral expansion is not a modification unless it results in an increase in the design capacity of the landfill.

Municipal solid waste landfill or *MSW landfill* means an entire disposal facility in a contiguous geographical space where household waste is placed in or on land. An MSW landfill may also receive other types of RCRA Subtitle D wastes (§ 257.2 of this title) such as commercial solid waste, nonhazardous sludge, conditionally exempt small quantity generator waste, and industrial solid waste. Portions of an MSW landfill may be separated by access roads. An MSW landfill may be publicly or privately owned. An MSW landfill may be a new MSW landfill, an existing MSW landfill, or a lateral expansion.

Municipal solid waste landfill emissions or *MSW landfill emissions* means gas generated by the decomposition of organic waste deposited in an MSW landfill or derived from the evolution of organic compounds in the waste.

NMOC means nonmethane organic compounds, as measured according to the provisions of § 60.754.

Nondegradable waste means any waste that does not decompose through chemical breakdown or microbiological activity. Examples are, but are not limited to, concrete, municipal waste combustor ash, and metals.

Passive collection system means a gas collection system that solely uses positive pressure within the landfill to move the gas rather than using gas mover equipment.

Sludge means any solid, semisolid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility, exclusive of the treated effluent from a wastewater treatment plant.

Solid waste means any garbage, sludge from a wastewater treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges that are point sources subject to permits under 33 U.S.C. 1342, or source, special nuclear, or by-product material as defined by the Atomic Energy Act of 1954, as amended (42 U.S.C 2011 et seq.).

Sufficient density means any number, spacing, and combination of collection

system components, including vertical wells, horizontal collectors, and surface collectors, necessary to maintain emission and migration control as determined by measures of performance set forth in this part.

Sufficient extraction rate means a rate sufficient to maintain a negative pressure at all wellheads in the collection system without causing air infiltration, including any wellheads connected to the system as a result of expansion or excess surface emissions, for the life of the blower.

§ 60.752 Standards for air emissions from municipal solid waste landfills.

(a) Each owner or operator of an MSW landfill having a design capacity less than 2.5 million megagrams by mass or 2.5 million cubic meters by volume shall submit an initial design capacity report to the Administrator as provided in § 60.757(a). The landfill may calculate design capacity in either megagrams or cubic meters for comparison with the exemption values. Any density conversions shall be documented and submitted with the report. For purposes of part 70 permitting, a landfill with a design capacity less than 2.5 million megagrams or 2.5 million cubic meters does not require an operating permit under part 70 of this chapter. Submittal of the initial design capacity report shall fulfill the requirements of this subpart except as provided for in paragraphs (a)(1) and (a)(2) of this section.

(1) The owner or operator shall submit to the Administrator an amended design capacity report, as provided for in § 60.757(a)(3), when there is any increase in the design capacity of a landfill subject to the provisions of this subpart, whether the increase results from an increase in the area or depth of the landfill, a change in the operating procedures of the landfill, or any other means.

(2) If any increase in the maximum design capacity of a landfill exempted from the provisions of § 60.752(b) through § 60.759 of this subpart on the basis of the design capacity exemption in paragraph (a) of this section results in a revised maximum design capacity equal to or greater than 2.5 million megagrams or 2.5 million cubic meters, the owner or operator shall comply with the provision of paragraph (b) of this section.

(b) Each owner or operator of an MSW landfill having a design capacity equal to or greater than 2.5 million megagrams or 2.5 million cubic meters, shall either comply with paragraph (b)(2) of this section or calculate an NMOC emission rate for the landfill using the procedures specified in § 60.754. The NMOC emission rate shall be recalculated annually, except as provided in § 60.757(b)(1)(ii) of this subpart. The owner or operator of an MSW landfill subject to this subpart with a design capacity greater than or equal to 2.5 million megagrams or 2.5 million cubic meters is subject to part 70 permitting requirements. When a landfill is closed, and either never needed control or meets the conditions for control system removal specified in § 60.752(b)(2)(v) of this subpart, a part 70 operating permit is no longer required.

(1) If the calculated NMOC emission rate is less than 50 megagrams per year, the owner or operator shall:

(i) Submit an annual emission report to the Administrator, except as provided for in § 60.757(b)(1)(ii); and

(ii) Recalculate the NMOC emission rate annually using the procedures specified in § 60.754(a)(1) until such time as the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, or the landfill is closed.

(A) If the NMOC emission rate, upon recalculation required in paragraph (b)(1)(ii) of this section, is equal to or greater than 50 megagrams per year, the owner or operator shall install a collection and control system in compliance with paragraph (b)(2) of this section.

(B) If the landfill is permanently closed, a closure notification shall be submitted to the Administrator as provided for in § 60.757(d).

(2) If the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, the owner or operator shall:

(i) Submit a collection and control system design plan prepared by a professional engineer to the Administrator within 1 year:

(A) The collection and control system as described in the plan shall meet the design requirements of paragraph (b)(2)(ii) of this section.

(B) The collection and control system design plan shall include any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions of §§ 60.753 through 60.758 proposed by the owner or operator.

(C) The collection and control system design plan shall either conform with specifications for active collection systems in § 60.759 or include a demonstration to the Administrator's satisfaction of the sufficiency of the alternative provisions to § 60.759.

(D) The Administrator shall review the information submitted under paragraphs (b)(2)(i) (A),(B) and (C) of this section and either approve it, disapprove it, or request that additional information be submitted. Because of the many site-specific factors involved with landfill gas system design, alternative systems may be necessary. A wide variety of system designs are possible, such as vertical wells, combination horizontal and vertical collection systems, or horizontal trenches only, leachate collection components, and passive systems.

(ii) Install a collection and control system within 18 months of the submittal of the design plan under paragraph (b)(2)(i) of this section that effectively captures the gas generated within the landfill.

(A) An active collection system shall:

(*1*) Be designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control or treatment system equipment;

(*2*) Collect gas from each area, cell, or group of cells in the landfill in which the initial solid waste has been placed for a period of:

(*i*) 5 years or more if active; or

(*ii*) 2 years or more if closed or at final grade;

(*3*) Collect gas at a sufficient extraction rate;

(*4*) Be designed to minimize off-site migration of subsurface gas.

(B) A passive collection system shall:

(*1*) Comply with the provisions specified in paragraphs (b)(2)(ii), (A) (*1*), (*2*), and (*4*) of this section.

(*2*) Be installed with liners on the bottom and all sides in all areas in which gas is to be collected. The liners shall be installed as required under § 258.40 of this title.

(iii) Route all the collected gas to a control system that complies with the requirements in either paragraph (b)(2)(iii) (A), (B) or (C) of this section.

(A) An open flare designed and operated in accordance with § 60.18;

(B) A control system designed and operated to reduce NMOC by 98 weight-percent, or, when an enclosed combustion device is used for control, to either reduce NMOC by 98 weight percent or reduce the outlet NMOC concentration to less than 20 parts per million by volume, dry basis as hexane at 3 percent oxygen. The reduction efficiency or parts per million by volume shall be established by an initial performance test, required under § 60.8 using the test methods specified in § 60.754(d).

(*1*) If a boiler or process heater is used as the control device, the landfill gas

stream shall be introduced into the flame zone.

(2) The control device shall be operated within the parameter ranges established during the initial or most recent performance test. The operating parameters to be monitored are specified in § 60.756;

(C) Route the collected gas to a treatment system that processes the collected gas for subsequent sale or use. All emissions from any atmospheric vent from the gas treatment system shall be subject to the requirements of paragraph (b)(2)(iii) (A) or (B) of this section.

(iv) Operate the collection and control device installed to comply with this subpart in accordance with the provisions of § § 60.753, 60.755 and 60.756.

(v) The collection and control system may be capped or removed provided that all the conditions of paragraphs (b)(2)(v) (A), (B), and (C) of this section are met:

(A) The landfill shall be no longer accepting solid waste and be permanently closed under the requirements of § 258.60 of this title. A closure report shall be submitted to the Administrator as provided in § 60.757(d);

(B) The collection and control system shall have been in operation a minimum of 15 years; and

(C) Following the procedures specified in § 60.754(b) of this subpart, the calculated NMOC gas produced by the landfill shall be less than 50 megagrams per year on three successive test dates. The test dates shall be no less than 90 days apart, and no more than 180 days apart.

§ 60.753 Operational standards for collection and control systems.

Each owner or operator of an MSW landfill gas collection and control system used to comply with the provisions of § 60.752(b)(2)(ii) of this subpart shall:

(a) Operate the collection system such that gas is collected from each area, cell, or group of cells in the MSW landfill in which solid waste has been in place for:

(1) 5 years or more if active; or

(2) 2 years or more if closed or at final grade;

(b) Operate the collection system with negative pressure at each wellhead except under the following conditions:

(1) A fire or increased well temperature. The owner or operator shall record instances when positive pressure occurs in efforts to avoid a fire. These records shall be submitted with the annual reports as provided in § 60.757(f)(1);

(2) Use of a geomembrane or synthetic cover. The owner or operator shall develop acceptable pressure limits in the design plan;

(3) A decommissioned well. A well may experience a static positive pressure after shut down to accommodate for declining flows. All design changes shall be approved by the Administrator;

(c) Operate each interior wellhead in the collection system with a landfill gas temperature less than 55 °C and with either a nitrogen level less than 20 percent or an oxygen level less than 5 percent. The owner or operator may establish a higher operating temperature, nitrogen, or oxygen value at a particular well. A higher operating value demonstration shall show supporting data that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens.

(1) The nitrogen level shall be determined using Method 3C, unless an alternative test method is established as allowed by § 60.752(b)(2)(i) of this subpart.

(2) Unless an alternative test method is established as allowed by § 60.752(b)(2)(i) of this subpart, the oxygen shall be determined by an oxygen meter using Method 3A except that:

(i) The span shall be set so that the regulatory limit is between 20 and 50 percent of the span;

(ii) A data recorder is not required;

(iii) Only two calibration gases are required, a zero and span, and ambient air may be used as the span;

(iv) A calibration error check is not required;

(v) The allowable sample bias, zero drift, and calibration drift are ±10 percent.

(d) Operate the collection system so that the methane concentration is less than 500 parts per million above background at the surface of the landfill. To determine if this level is exceeded, the owner or operator shall conduct surface testing around the perimeter of the collection area along a pattern that traverses the landfill at 30 meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover. The owner or operator may establish an alternative traversing pattern that ensures equivalent coverage. A surface monitoring design plan shall be developed that includes a topographical map with the monitoring route and the rationale for any site-specific deviations from the 30 meter intervals. Areas with steep slopes or other dangerous areas may be excluded from the surface testing.

(e) Operate the system such that all collected gases are vented to a control system designed and operated in compliance with § 60.752(b)(2)(iii). In the event the collection or control system is inoperable, the gas mover system shall be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere shall be closed within 1 hour; and

(f) Operate the control or treatment system at all times when the collected gas is routed to the system.

(g) If monitoring demonstrates that the operational requirement in paragraphs (b), (c), or (d) of this section are not met, corrective action shall be taken as specified in § 60.752(a) (3) through (5) or § 60.755(c) of this subpart. If corrective actions are taken as specified in § 60.755, the monitored exceedance is not a violation of the operational requirements in this section.

§ 60.754 Test methods and procedures.

(a)(1) The landfill owner or operator shall calculate the NMOC emission rate using either the equation provided in paragraph (a)(1)(i) of this section or the equation provided in paragraph (a)(1)(ii) of this section. The values to be used in both equations are 0.05 per year for k, 170 cubic meters per megagram for Lo, and 4,000 parts per million by volume as hexane for the C_{NMOC}.

(i) The following equation shall be used if the actual year-to-year solid waste acceptance rate is known.

$$M_{NMOC} = \sum_{i=1}^{n} 2\,k\,L_o M_i \left(e^{-kt_i}\right)\left(C_{NM}OC\right)\left(3.6\times10^{-9}\right)$$

where,

M_{NMOC}=Total NMOC emission rate from the landfill, megagrams per year

k=methane generation rate constant, $year^{-1}$

L_o=methane generation potential, cubic meters per megagram solid waste

M_i=mass of solid waste in the ith section, megagrams

t_i=age of the ith section, years

C_{NMOC}=concentration of NMOC, parts per million by volume as hexane

3.6×10^{-9}=conversion factor

The mass of nondegradable solid waste may be subtracted from the total mass of solid waste in a particular section of the landfill when calculating the value for M_i if the documentation provisions of § 60.758(d)(2) are followed.

(ii) The following equation shall be used if the actual year-to-year solid waste acceptance rate is unknown.

$$M_{NMOC}=2L_o R (e^{-kc} - e^{-kt}) (C_{NM}OC) (3.6 \times 10^{-9})$$

where,

M_{NMOC}=mass emission rate of NMOC, megagrams per year

L_o=methane generation potential, cubic meters per megagram solid waste

R=average annual acceptance rate, megagrams per year

k=methane generation rate constant, $year^{-1}$

t=age of landfill, years

C_{NMOC}=concentration of NMOC, parts per million by volume as hexane

c=time since closure, years. For active landfill c = O and e^{-kc}=1

3.6×10^{-9}=conversion factor

The mass of nondegradable solid waste may be subtracted from the average annual acceptance rate when calculating a value for R, if the documentation provisions of § 60.758(d)(2) are followed.

(2) *Tier 1.* The owner or operator shall compare the calculated NMOC mass emission rate to the standard of 50 megagrams per year.

(i) If the NMOC emission rate calculated in paragraph (a)(1) of this section is less than 50 megagrams per year, then the landfill owner shall submit an emission rate report as provided in § 60.757(b)(1), and shall recalculate the NMOC mass emission rate annually as required under § 60.752(b)(1).

(ii) If the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, then the landfill owner shall either comply with § 60.752(b)(2), or determine a site-specific NMOC concentration and recalculate the NMOC emission rate using the procedures provided in paragraph (a)(3) of this section.

(3) *Tier 2.* The landfill owner or operator shall determine the NMOC concentration using the following sampling procedure. The landfill owner or operator shall install at least two sample probes per hectare of landfill surface that has retained waste for at least 2 years. If the landfill is larger than 25 hectares in area, only 50 samples are required. The sample probes should be located to avoid known areas of nondegradable solid waste. The owner or operator shall collect and analyze one sample of landfill gas from each probe to determine the NMOC concentration using Method 25C of appendix A of this part or Method 18 of appendix A of this part. If using Method 18 of appendix A of this part, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). If composite sampling is used, equal volumes shall be taken from each sample probe. If more than the required number of samples are taken, all samples shall be used in the analysis. The landfill owner or operator shall divide the NMOC concentration from Method 25C of appendix A of this part by six to convert from C_{NMOC} as carbon to $C_{NM}OC$ as hexane.

(i) The landfill owner or operator shall recalculate the NMOC mass emission rate using the equations provided in paragraph (a)(1)(i) or (a)(1)(ii) of this section and using the average NMOC concentration from the collected samples instead of the default value in the equation provided in paragraph (a)(1) of this section.

(ii) If the resulting mass emission rate calculated using the site-specific NMOC concentration is equal to or greater than 50 megagrams per year, then the landfill owner or operator shall either comply with § 60.752(b)(2), or determine the site-specific methane generation rate constant and recalculate the NMOC emission rate using the site-specific methane generation rate using the procedure specified in paragraph (a)(4) of this section.

(iii) If the resulting NMOC mass emission rate is less than 50 megagrams per year, the owner or operator shall submit a periodic estimate of the emission rate report as provided in § 60.757(b)(1) and retest the site-specific NMOC concentration every 5 years using the methods specified in this section.

(4) *Tier 3.* The site-specific methane generation rate constant shall be determined using the procedures provided in Method 2E of appendix A of this part. The landfill owner or operator shall estimate the NMOC mass emission rate using equations in paragraph (a)(1)(i) or (a)(1)(ii) of this section and using a site-specific methane generation rate constant k, and the site-specific NMOC concentration as determined in paragraph (a)(3) of this section instead of the default values provided in paragraph (a)(1) of this section. The landfill owner or operator shall compare the resulting NMOC mass emission rate to the standard of 50 megagrams per year.

(i) If the NMOC mass emission rate as calculated using the site-specific methane generation rate and concentration of NMOC is equal to or greater than 50 megagrams per year, the owner or operator shall comply with § 60.752(b)(2).

(ii) If the NMOC mass emission rate is less than 50 megagrams per year, then the owner or operator shall submit a periodic emission rate report as provided in § 60.757(b)(1) and shall recalculate the NMOC mass emission rate annually, as provided in § 60.757(b)(1) using the equations in paragraph (a)(1) of this section and using the site-specific methane generation rate constant and NMOC concentration obtained in paragraph (a)(3) of this section. The calculation of the methane generation rate constant is performed only once, and the value obtained is used in all subsequent annual NMOC emission rate calculations.

(5) The owner or operator may use other methods to determine the NMOC concentration or a site-specific k as an alternative to the methods required in paragraphs (a)(3) and (a)(4) of this section if the method has been approved by the Administrator as provided in § 60.752(b)(2)(i)(B).

(b) After the installation of a collection and control system in compliance with § 60.755, the owner or operator shall calculate the NMOC emission rate for purposes of determining when the system can be removed as provided in § 60.752(b)(2)(v), using the following equation:

$$M_{NMOC} = 1.89 \times 10^{-3} Q_{LFG} C_{NMOC}$$

where,

M_{NMOC} = mass emission rate of NMOC, megagrams per year

Q_{LFG} = flow rate of landfill gas, cubic meters per minute

C_{NMOC} = NMOC concentration, parts per million by volume as hexane

(1) The flow rate of landfill gas, Q_{LFG}, shall be determined by measuring the total landfill gas flow rate at the common header pipe that leads to the control device using a gas flow measuring device calibrated according to the provisions of section 4 of Method 2E of appendix A of this part.

(2) The average NMOC concentration, C_{NMOC}, shall be determined by collecting and analyzing landfill gas sampled from the common header pipe before the gas moving or condensate

removal equipment using the procedures in Method 25C or Method 18 of appendix A of this part. If using Method 18 of appendix A of this part, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). The sample location on the common header pipe shall be before any condensate removal or other gas refining units. The landfill owner or operator shall divide the NMOC concentration from Method 25C of appendix A of this part by six to convert from C_{NMOC} as carbon to C_{NMOC} as hexane.

(3) The owner or operator may use another method to determine landfill gas flow rate and NMOC concentration if the method has been approved by the Administrator as provided in § 60.752(b)(2)(i)(B).

(c) The owner or operator of each MSW landfill subject to the provisions of this subpart shall estimate the NMOC emission rate for comparison to the PSD major source and significance levels in §§ 51.166 or 52.21 of this chapter using AP-42 or other approved measurement procedures. If a collection system, which complies with the provisions in § 60.752(b)(2) is already installed, the owner or operator shall estimate the NMOC emission rate using the procedures provided in paragraph (b) of this section.

(d) For the performance test required in § 60.752(b)(2)(iii)(B), Method 25 or Method 18 of appendix A of this part shall be used to determine compliance with 98 weight-percent efficiency or the 20 ppmv outlet concentration level, unless another method to demonstrate compliance has been approved by the Administrator as provided by § 60.752(b)(2)(i)(B). If using Method 18 of appendix A of this part, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). The following equation shall be used to calculate efficiency:

Control Efficiency = $(NMOC_{in} - NMOC_{out})/(NMOC_{in})$

where,

$NMOC_{in}$ = mass of NMOC entering control device

$NMOC_{out}$ = mass of NMOC exiting control device

§ 60.755 Compliance provisions.

(a) Except as provided in § 60.752(b)(2)(i)(B), the specified methods in paragraphs (a)(1) through (a)(6) of this section shall be used to determine whether the gas collection system is in compliance with § 60.752(b)(2)(ii).

(1) For the purposes of calculating the maximum expected gas generation flow rate from the landfill to determine compliance with § 60.752(b)(2)(ii)(A)(*1*), one of the following equations shall be used. The k and L_o kinetic factors should be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42) or other site specific values demonstrated to be appropriate and approved by the Administrator. If k has been determined as specified in § 60.754(a)(4), the value of k determined from the test shall be used. A value of no more than 15 years shall be used for the intended use period of the gas mover equipment. The active life of the landfill is the age of the landfill plus the estimated number of years until closure.

(i) For sites with unknown year-to-year solid waste acceptance rate:

$$Q_m = 2L_o R (e^{-kc} - e^{-kt})$$

where,

Q_m = maximum expected gas generation flow rate, cubic meters per year

L_o = methane generation potential, cubic meters per megagram solid waste

R = average annual acceptance rate, megagrams per year

k = methane generation rate constant, $year^{-1}$

t = age of the landfill at equipment installation plus the time the owner or operator intends to use the gas mover equipment or active life of the landfill, whichever is less. If the equipment is installed after closure, t is the age of the landfill at installation, years

c = time since closure, years (for an active landfill c = O and $e^{-kc} = 1$)

(ii) For sites with known year-to-year solid waste acceptance rate:

$$Q_M = \sum_{i=1}^{n} 2\,k\,L_o\,M_i\left(e^{-kt_i}\right)$$

where,

Q_M=maximum expected gas generation flow rate, cubic meters per year

k=methane generation rate constant, $year^{-1}$

L_o=methane generation potential, cubic meters per megagram solid waste

M_i=mass of solid waste in the ith section, megagrams

t_i=age of the ith section, years

(iii) If a collection and control system has been installed, actual flow data may be used to project the maximum expected gas generation flow rate instead of, or in conjunction with, the equations in paragraphs (a)(1) (i) and (ii) of this section. If the landfill is still accepting waste, the actual measured flow data will not equal the maximum expected gas generation rate, so calculations using the equations in paragraphs (a)(1) (i) or (ii) or other methods shall be used to predict the maximum expected gas generation rate over the intended period of use of the gas control system equipment.

(2) For the purposes of determining sufficient density of gas collectors for compliance with § 60.752(b)(2)(ii)(A)(*2*), the owner or operator shall design a system of vertical wells, horizontal collectors, or other collection devices, satisfactory to the Administrator, capable of controlling and extracting gas from all portions of the landfill sufficient to meet all operational and performance standards.

(3) For the purpose of demonstrating whether the gas collection system flow rate is sufficient to determine compliance with § 60.752(b)(2)(ii)(A)(*3*), the owner or operator shall measure gauge pressure in the gas collection header at each individual well, monthly. If a positive pressure exists, action shall be initiated to correct the exceedance within 5 calendar days, except for the three conditions allowed under § 60.753(b). If negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial measurement of positive pressure. Any attempted corrective measure shall not cause exceedances of other operational or performance standards.

(4) Owners or operators are not required to install additional wells as required in paragraph (a)(3) of this section during the first 180 days after gas collection system start-up.

(5) For the purpose of identifying whether excess air infiltration into the landfill is occurring, the owner or operator shall monitor each well monthly for temperature and nitrogen or oxygen as provided in § 60.753(c). If a well exceeds one of these operating parameters, action shall be initiated to correct the exceedance within 5 calendar days. If correction of the exceedance cannot be achieved within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial exceedance. Any attempted corrective measure shall not cause exceedances of other operational or performance standards.

(6) An owner or operator seeking to demonstrate compliance with § 60.752(b)(2)(ii)(A)(*4*) through the use of a collection system not conforming to the specifications provided in § 60.759 shall provide information satisfactory to the Administrator as specified in § 60.752(b)(2)(i)(C) demonstrating that off-site migration is being controlled.

(b) For purposes of compliance with § 60.753(a), each owner or operator of a controlled landfill shall place each well or design component as specified in the approved design plan as provided in § 60.752(b)(2)(i). Each well shall be installed within 60 days of the date in which the initial solid waste has been in place for a period of:

(1) 5 years or more if active; or

(2) 2 years or more if closed or at final grade.

(c) The following procedures shall be used for compliance with the surface methane operational standard as provided in § 60.753(d).

(1) After installation of the collection system, the owner or operator shall monitor surface concentrations of methane along the entire perimeter of the collection area and along a serpentine pattern spaced 30 meters apart (or a site-specific established spacing) for each collection area on a quarterly basis using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in paragraph (d) of this section.

(2) The background concentration shall be determined by moving the probe inlet upwind and downwind outside the boundary of the landfill at a distance of at least 30 meters from the perimeter wells.

(3) Surface emission monitoring shall be performed in accordance with section 4.3.1 of Method 21 of appendix A of this part, except that the probe inlet shall be placed within 5 to 10 centimeters of the ground. Monitoring shall be performed during typical meteorological conditions.

(4) Any reading of 500 parts per million or more above background at any location shall be recorded as a monitored exceedance and the actions specified in paragraphs (c)(4) (i) through (v) of this section shall be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements of § 60.753(d).

(i) The location of each monitored exceedance shall be marked and the location recorded.

(ii) Cover maintenance or adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of each exceedance shall be made and the location shall be re-monitored within 10 calendar days of detecting the exceedance.

(iii) If the re-monitoring of the location shows a second exceedance, additional corrective action shall be taken and the location shall be monitored again within 10 days of the second exceedance. If the re-monitoring shows a third exceedance for the same location, the action specified in paragraph (c)(4)(v) of this section shall be taken, and no further monitoring of that location is required until the action specified in paragraph (c)(4)(v) has been taken.

(iv) Any location that initially showed an exceedance but has a methane concentration less than 500 ppm methane above background at the 10-day re-monitoring specified in paragraph (c)(4) (ii) or (iii) of this section shall be re-monitored 1 month from the initial exceedance. If the 1-month remonitoring shows a concentration less than 500 parts per million above background, no further monitoring of that location is required until the next quarterly monitoring period. If the 1-month remonitoring shows an exceedance, the actions specified in paragraph (c)(4) (iii) or (v) shall be taken.

(v) For any location where monitored methane concentration equals or exceeds 500 parts per million above background three times within a quarterly period, a new well or other collection device shall be installed within 120 calendar days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower, header pipes or control device, and a corresponding timeline for installation may be submitted to the Administrator for approval.

(5) The owner or operator shall implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis.

(d) Each owner or operator seeking to comply with the provisions in paragraph (c) of this section shall comply with the following instrumentation specifications and procedures for surface emission monitoring devices:

(1) The portable analyzer shall meet the instrument specifications provided in section 3 of Method 21 of appendix A of this part, except that "methane" shall replace all references to VOC.

(2) The calibration gas shall be methane, diluted to a nominal concentration of 500 parts per million in air.

(3) To meet the performance evaluation requirements in section 3.1.3 of Method 21 of appendix A of this part, the instrument evaluation procedures of section 4.4 of Method 21 of appendix A of this part shall be used.

(4) The calibration procedures provided in section 4.2 of Method 21 of appendix A of this part shall be followed immediately before commencing a surface monitoring survey.

(e) The provisions of this subpart apply at all times, except during periods of start-up, shutdown, or malfunction, provided that the duration of start-up, shutdown, or malfunction shall not exceed 5 days for collection systems and shall not exceed 1 hour for treatment or control devices.

§ 60.756 Monitoring of operations.

Except as provided in § 60.752(b)(2)(i)(B),

(a) Each owner or operator seeking to comply with § 60.752(b)(2)(ii)(A) for an active gas collection system shall install a sampling port and a thermometer or other temperature measuring device at each wellhead and:

(1) Measure the gauge pressure in the gas collection header on a monthly basis as provided in § 60.755(a)(3); and

(2) Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as provided in § 60.755(a)(5); and

(3) Monitor temperature of the landfill gas on a monthly basis as provided in § 60.755(a)(5).

(b) Each owner or operator seeking to comply with § 60.752(b)(2)(iii) using an enclosed combustor shall calibrate, maintain, and operate according to the manufacturer's specifications, the following equipment.

(1) A temperature monitoring device equipped with a continuous recorder and having an accuracy of ±1 percent of the temperature being measured expressed in degrees Celsius or ±0.5 °C, whichever is greater. A temperature monitoring device is not required for boilers or process heaters with design heat input capacity greater than 44 megawatts.

(2) A gas flow rate measuring device that provides a measurement of gas flow to or bypass of the control device. The owner or operator shall either:

(i) Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; or

(ii) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.

(c) Each owner or operator seeking to comply with § 60.752(b)(2)(iii) using an open flare shall install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment:

(1) A heat sensing device, such as an ultraviolet beam sensor or

thermocouple, at the pilot light or the flame itself to indicate the continuous presence of a flame.

(2) A device that records flow to or bypass of the flare. The owner or operator shall either:

(i) Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; or

(ii) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.

(d) Each owner or operator seeking to demonstrate compliance with § 60.752(b)(2)(iii) using a device other than an open flare or an enclosed combustor shall provide information satisfactory to the Administrator as provided in § 60.752(b)(2)(i)(B) describing the operation of the control device, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Administrator shall review the information and either approve it, or request that additional information be submitted. The Administrator may specify additional appropriate monitoring procedures.

(e) Each owner or operator seeking to install a collection system that does not meet the specifications in § 60.759 or seeking to monitor alternative parameters to those required by § 60.753 through § 60.756 shall provide information satisfactory to the Administrator as provided in § 60.752(b)(2)(i) (B) and (C) describing the design and operation of the collection system, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Administrator may specify additional appropriate monitoring procedures.

(f) Each owner or operator seeking to demonstrate compliance with § 60.755(c), shall monitor surface concentrations of methane according to the instrument specifications and procedures provided in § 60.755(d). Any closed landfill that has no monitored exceedances of the operational standard in three consecutive quarterly monitoring periods may skip to annual monitoring. Any methane reading of 500 ppm or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring.

§ 60.757 Reporting requirements.

Except as provided in § 60.752(b)(2)(i)(B),

(a) Each owner or operator subject to the requirements of this subpart shall submit an initial design capacity report to the Administrator.

(1) The initial design capacity report shall fulfill the requirements of the notification of the date construction is commenced as required under § 60.7(a)(1) and shall be submitted no later than the earliest day from the following:

(i) 90 days of the issuance of the State, Local, Tribal, or RCRA construction or operating permit; or

(ii) 30 days of the date of construction or reconstruction as defined under § 60.15; or

(iii) 30 days of the initial acceptance of solid waste.

(2) The initial design capacity report shall contain the following information:

(i) A map or plot of the landfill, providing the size and location of the landfill, and identifying all areas where solid waste may be landfilled according to the provisions of the State, local, Tribal, or RCRA construction or operating permit;

(ii) The maximum design capacity of the landfill. Where the maximum design capacity is specified in the State or local construction or RCRA permit, a copy of the permit specifying the maximum design capacity may be submitted as part of the report. If the maximum design capacity of the landfill is not specified in the permit, the maximum design capacity shall be calculated using good engineering practices. The calculations shall be provided, along with such parameters as depth of solid waste, solid waste acceptance rate, and compaction practices as part of the report. The State, Tribal, local agency or Administrator may request other reasonable information as may be necessary to verify the maximum design capacity of the landfill.

(3) An amended design capacity report shall be submitted to the Administrator providing notification of any increase in the design capacity of the landfill, whether the increase results from an increase in the permitted area or depth of the landfill, a change in the operating procedures, or any other means which results in an increase in the maximum design capacity of the landfill above 2.5 million megagrams or 2.5 million cubic meters. The amended design capacity report shall be submitted within 90 days of the issuance of an amended construction or operating permit, or the placement of waste in additional land, or the change in operating procedures which will result in an increase in maximum design capacity, whichever occurs first.

(b) Each owner or operator subject to the requirements of this subpart shall submit an NMOC emission rate report to the Administrator initially and annually thereafter, except as provided for in paragraphs (b)(1)(ii) or (b)(3) of this section. The Administrator may request such additional information as may be necessary to verify the reported NMOC emission rate.

(1) The NMOC emission rate report shall contain an annual or 5-year estimate of the NMOC emission rate calculated using the formula and procedures provided in § 60.754(a) or (b), as applicable.

(i) The initial NMOC emission rate report shall be submitted within 90 days of the date waste acceptance commences and may be combined with the initial design capacity report required in paragraph (a) of this section. Subsequent NMOC emission rate reports shall be submitted annually thereafter, except as provided for in paragraphs (b)(1)(ii) and (b)(3) of this section.

(ii) If the estimated NMOC emission rate as reported in the annual report to the Administrator is less than 50 megagrams per year in each of the next 5 consecutive years, the owner or operator may elect to submit an estimate of the NMOC emission rate for the next 5-year period in lieu of the annual report. This estimate shall include the current amount of solid waste-in-place and the estimated waste acceptance rate for each year of the 5 years for which an NMOC emission rate is estimated. All data and calculations upon which this estimate is based shall be provided to the Administrator. This estimate shall be revised at least once every 5 years. If the actual waste acceptance rate exceeds the estimated waste acceptance rate in any year reported in the 5-year estimate, a revised 5-year estimate shall be submitted to the Administrator. The revised estimate shall cover the 5-year period beginning with the year in which the actual waste acceptance rate exceeded the estimated waste acceptance rate.

(2) The NMOC emission rate report shall include all the data, calculations, sample reports and measurements used to estimate the annual or 5-year emissions.

(3) Each owner or operator subject to the requirements of this subpart is exempted from the requirements of paragraphs (b)(1) and (2) of this section, after the installation of a collection and control system in compliance with § 60.752(b)(2), during such time as the collection and control system is in

operation and in compliance with §§ 60.753 and 60.755.

(c) Each owner or operator subject to the provisions of § 60.752(b)(2)(i) shall submit a collection and control system design plan to the Administrator within 1 year of the first report, required under paragraph (b) of this section, in which the emission rate exceeds 50 megagrams per year, except as follows:

(1) If the owner or operator elects to recalculate the NMOC emission rate after Tier 2 NMOC sampling and analysis as provided in § 60.754(a)(3) and the resulting rate is less than 50 megagrams per year, annual periodic reporting shall be resumed, using the Tier 2 determined site-specific NMOC concentration, until the calculated emission rate is equal to or greater than 50 megagrams per year or the landfill is closed. The revised NMOC emission rate report, with the recalculated emission rate based on NMOC sampling and analysis, shall be submitted within 180 days of the first calculated exceedance of 50 megagrams per year.

(2) If the owner or operator elects to recalculate the NMOC emission rate after determining a site-specific methane generation rate constant (k), as provided in Tier 3 in § 60.754(a)(4), and the resulting NMOC emission rate is less than 50 Mg/yr, annual periodic reporting shall be resumed. The resulting site-specific methane generation rate constant (k) shall be used in the emission rate calculation until such time as the emissions rate calculation results in an exceedance. The revised NMOC emission rate report based on the provisions of § 60.754(a)(4) and the resulting site-specific methane generation rate constant (k) shall be submitted to the Administrator within 1 year of the first calculated emission rate exceeding 50 megagrams per year.

(d) Each owner or operator of a controlled landfill shall submit a closure report to the Administrator within 30 days of waste acceptance cessation. The Administrator may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of 40 CFR 258.60. If a closure report has been submitted to the Administrator, no additional wastes may be placed into the landfill without filing a notification of modification as described under § 60.7(a)(4).

(e) Each owner or operator of a controlled landfill shall submit an equipment removal report to the Administrator 30 days prior to removal or cessation of operation of the control equipment.

(1) The equipment removal report shall contain all of the following items:

(i) A copy of the closure report submitted in accordance with paragraph (d) of this section;

(ii) A copy of the initial performance test report demonstrating that the 15 year minimum control period has expired; and

(iii) Dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 50 megagrams or greater of NMOC per year.

(2) The Administrator may request such additional information as may be necessary to verify that all of the conditions for removal in § 60.752(b)(2)(v) have been met.

(f) Each owner or operator of a landfill seeking to comply with § 60.752(b)(2) using an active collection system designed in accordance with § 60.752(b)(2)(ii) shall submit to the Administrator annual reports of the recorded information in (f)(1) through (f)(6) of this paragraph. The initial annual report shall be submitted within 180 days of installation and start-up of the collection and control system, and shall include the initial performance test report required under § 60.8. For enclosed combustion devices and flares, reportable exceedances are defined under § 60.758(c).

(1) Value and length of time for exceedance of applicable parameters monitored under § 60.756(a), (b), (c), and (d).

(2) Description and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow as specified under § 60.756.

(3) Description and duration of all periods when the control device was not operating for a period exceeding 1 hour and length of time the control device was not operating.

(4) All periods when the collection system was not operating in excess of 5 days.

(5) The location of each exceedance of the 500 parts per million methane concentration as provided in § 60.753(d) and the concentration recorded at each location for which an exceedance was recorded in the previous month.

(6) The date of installation and the location of each well or collection system expansion added pursuant to paragraphs (a)(3), (b), and (c)(4) of § 60.755.

(g) Each owner or operator seeking to comply with § 60.752(b)(2)(i) shall include the following information with the initial performance test report required under § 60.8:

(1) A diagram of the collection system showing collection system positioning including all wells, horizontal collectors, surface collectors, or other gas extraction devices, including the locations of any areas excluded from collection and the proposed sites for the future collection system expansion;

(2) The data upon which the sufficient density of wells, horizontal collectors, surface collectors, or other gas extraction devices and the gas mover equipment sizing are based;

(3) The documentation of the presence of asbestos or nondegradable material for each area from which collection wells have been excluded based on the presence of asbestos or nondegradable material;

(4) The sum of the gas generation flow rates for all areas from which collection wells have been excluded based on nonproductivity and the calculations of gas generation flow rate for each excluded area; and

(5) The provisions for increasing gas mover equipment capacity with increased gas generation flow rate, if the present gas mover equipment is inadequate to move the maximum flow rate expected over the life of the landfill; and

(6) The provisions for the control of off-site migration.

§ 60.758 Recordkeeping requirements.

Except as provided in § 60.752(b)(2)(i)(B),

(a) Each owner or operator of an MSW landfill subject to the provisions of § 60.752(b) shall keep for at least 5 years up-to-date, readily accessible, on-site records of the maximum design capacity, the current amount of solid waste in-place, and the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable.

(b) Each owner or operator of a controlled landfill shall keep up-to-date, readily accessible records for the life of the control equipment of the data listed in paragraphs (b)(1) through (b)(4) of this section as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring shall be maintained for a minimum of 5 years. Records of the control device vendor specifications shall be maintained until removal.

(1) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with § 60.752(b)(2)(ii):

(i) The maximum expected gas generation flow rate as calculated in § 60.755(a)(1). The owner or operator may use another method to determine the maximum gas generation flow rate,

if the method has been approved by the Administrator.

(ii) The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in § 60.759(a)(1).

(2) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with § 60.752(b)(2)(iii) through use of an enclosed combustion device other than a boiler or process heater with a design heat input capacity greater than 44 megawatts:

(i) The average combustion temperature measured at least every 15 minutes and averaged over the same time period of the performance test.

(ii) The percent reduction of NMOC determined as specified in § 60.752(b)(2)(iii)(B) achieved by the control device.

(3) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with § 60.752(b)(2)(iii)(B)(*1*) through use of a boiler or process heater of any size: a description of the location at which the collected gas vent stream is introduced into the boiler or process heater over the same time period of the performance testing.

(4) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with § 60.752(b)(2)(iii)(A) through use of an open flare, the flare type (i.e., steam-assisted, air-assisted, or nonassisted), all visible emission readings, heat content determination, flow rate or bypass flow rate measurements, and exit velocity determinations made during the performance test as specified in § 60.18; continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations during which the pilot flame of the flare flame is absent.

(c) Each owner or operator of a controlled landfill subject to the provisions of this subpart shall keep for 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in § 60.756 as well as up-to-date, readily accessible records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded.

(1) The following constitute exceedances that shall be recorded and reported under § 60.757(f):

(i) For enclosed combustors except for boilers and process heaters with design heat input capacity of 44 megawatts (150 million British thermal unit per hour) or greater, all 3-hour periods of operation during which the average combustion temperature was more than 28 oC below the average combustion temperature during the most recent performance test at which compliance with § 60.752(b)(2)(iii) was determined.

(ii) For boilers or process heaters, whenever there is a change in the location at which the vent stream is introduced into the flame zone as required under paragraph (b)(3)(i) of this section.

(2) Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily accessible continuous records of the indication of flow to the control device or the indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines, specified under § 60.756.

(3) Each owner or operator subject to the provisions of this subpart who uses a boiler or process heater with a design heat input capacity of 44 megawatts or greater to comply with § 60.752(b)(2)(iii) shall keep an up-to-date, readily accessible record of all periods of operation of the boiler or process heater. (Examples of such records could include records of steam use, fuel use, or monitoring data collected pursuant to other State, local, Tribal, or Federal regulatory requirements.)

(4) Each owner or operator seeking to comply with the provisions of this subpart by use of an open flare shall keep up-to-date, readily accessible continuous records of the flame or flare pilot flame monitoring specified under § 60.756(c), and up-to-date, readily accessible records of all periods of operation in which the flame or flare pilot flame is absent.

(d) Each owner or operator subject to the provisions of this subpart shall keep for the life of the collection system an up-to-date, readily accessible plot map showing each existing and planned collector in the system and providing a unique identification location label for each collector.

(1) Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified under § 60.755(b).

(2) Each owner or operator subject to the provisions of this subpart shall keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing or nondegradable waste excluded from collection as provided in § 60.759(a)(3)(i) as well as any nonproductive areas excluded from collection as provided in § 60.759(a)(3)(ii).

(e) Each owner or operator subject to the provisions of this subpart shall keep for at least 5 years up-to-date, readily accessible records of all collection and control system exceedances of the operational standards in § 60.753, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance.

§ 60.759 Specifications for active collection systems.

(a) Each owner or operator seeking to comply with § 60.752(b)(2)(i) shall site active collection wells, horizontal collectors, surface collectors, or other extraction devices at a sufficient density throughout all gas producing areas using the following procedures unless alternative procedures have been approved by the Administrator as provided in § 60.752(b)(2)(i)(C) and (D):

(1) The collection devices within the interior and along the perimeter areas shall be certified to achieve comprehensive control of surface gas emissions by a professional engineer. The following issues shall be addressed in the design: depths of refuse, refuse gas generation rates and flow characteristics, cover properties, gas system expandibility, leachate and condensate management, accessibility, compatibility with filling operations, integration with closure end use, air intrusion control, corrosion resistance, fill settlement, and resistance to the refuse decomposition heat.

(2) The sufficient density of gas collection devices determined in paragraph (a)(1) of this section shall address landfill gas migration issues and augmentation of the collection system through the use of active or passive systems at the landfill perimeter or exterior.

(3) The placement of gas collection devices determined in paragraph (a)(1) of this section shall control all gas producing areas, except as provided by paragraphs (a)(3)(i) and (a)(3)(ii) of this section.

(i) Any segregated area of asbestos or nondegradable material may be excluded from collection if documented as provided under § 60.758(d). The documentation shall provide the nature, date of deposition, location and amount of asbestos or nondegradable material deposited in the area, and shall be provided to the Administrator upon request.

(ii) Any nonproductive area of the landfill may be excluded from control, provided that the total of all excluded areas can be shown to contribute less than 1 percent of the total amount of NMOC emissions from the landfill. The

amount, location, and age of the material shall be documented and provided to the Administrator upon request. A separate NMOC emissions estimate shall be made for each section proposed for exclusion, and the sum of all such sections shall be compared to the NMOC emissions estimate for the entire landfill. Emissions from each section shall be computed using the following equation:

$$Q_i = 2\ k\ L_o\ M_i\ (e^{-kt_i})\ (C_{NM}OC)\ (3.6 \times 10^{-9})$$

where,

Q_i = NMOC emission rate from the ith section, megagrams per year

k = methane generation rate constant, $year^{-1}$

L_o = methane generation potential, cubic meters per megagram solid waste

M_i = mass of the degradable solid waste in the ith section, megagram

t_i = age of the solid waste in the ith section, years

C_{NMOC} = concentration of nonmethane organic compounds, parts per million by volume

3.6×10^{-9} = conversion factor

(iii) The values for k, L_o, and $C_{NM}OC$ determined in field testing shall be used, if field testing has been performed in determining the NMOC emission rate or the radii of influence. If field testing has not been performed, the default values for k, L_o and $C_{NM}OC$ provided in § 60.754(a)(1) shall be used. The mass of nondegradable solid waste contained within the given section may be subtracted from the total mass of the section when estimating emissions provided the nature, location, age, and amount of the nondegradable material is documented as provided in paragraph (a)(3)(i) of this section.

(b) Each owner or operator seeking to comply with § 60.752(b)(2)(i)(A) shall construct the gas collection devices using the following equipment or procedures:

(1) The landfill gas extraction components shall be constructed of polyvinyl chloride (PVC), high density polyethylene (HDPE) pipe, fiberglass, stainless steel, or other nonporous corrosion resistant material of suitable dimensions to: convey projected amounts of gases; withstand installation, static, and settlement forces; and withstand planned overburden or traffic loads. The collection system shall extend as necessary to comply with emission and migration standards. Collection devices such as wells and horizontal collectors shall be perforated to allow gas entry without head loss sufficient to impair performance across the intended extent of control. Perforations shall be situated with regard to the need to prevent excessive air infiltration.

(2) Vertical wells shall be placed so as not to endanger underlying liners and shall address the occurrence of water within the landfill. Holes and trenches constructed for piped wells and horizontal collectors shall be of sufficient cross-section so as to allow for their proper construction and completion including, for example, centering of pipes and placement of gravel backfill. Collection devices shall be designed so as not to allow indirect short circuiting of air into the cover or refuse into the collection system or gas into the air. Any gravel used around pipe perforations should be of a dimension so as not to penetrate or block perforations.

(3) Collection devices may be connected to the collection header pipes below or above the landfill surface. The connector assembly shall include a positive closing throttle valve, any necessary seals and couplings, access couplings and at least one sampling port. The collection devices shall be constructed of PVC, HDPE, fiberglass, stainless steel, or other nonporous material of suitable thickness.

(c) Each owner or operator seeking to comply with § 60.752(b)(2)(i)(A) shall convey the landfill gas to a control system in compliance with § 60.752(b)(2)(iii) through the collection header pipe(s). The gas mover equipment shall be sized to handle the maximum gas generation flow rate expected over the intended use period of the gas moving equipment using the following procedures:

(1) For existing collection systems, the flow data shall be used to project the maximum flow rate. If no flow data exists, the procedures in paragraph (c)(2) of this section shall be used.

(2) For new collection systems, the maximum flow rate shall be in accordance with § 60.755(a)(1).

10. Part 60 is further amended by adding Methods 2E, 3C and 25C to appendix A as follows:

Appendix A—Reference Methods

* * * * *

Method 2E—Determination of Landfill Gas; Gas Production Flow Rate

1. Applicability and Principle

1.1 Applicability. This method applies to the measurement of landfill gas (LFG) production flow rate from municipal solid waste (MSW) landfills and is used to calculate the flow rate of nonmethane organic compounds (NMOC) from landfills. This method also applies to calculating a site-specific k value as provided in § 60.754(a)(4). It is unlikely that a site-specific k value obtained through Method 2E testing will lower the annual emission estimate below 50 Mg/yr NMOC unless the Tier 2 emission estimate is only slightly higher than 50 Mg/yr NMOC. Dry, arid regions may show a more significant difference between the default and calculated k values than wet regions.

1.2 Principle. Extraction wells are installed either in a cluster of three or at five locations dispersed throughout the landfill. A blower is used to extract LFG from the landfill. LFG composition, landfill pressures near the extraction well, and volumetric flow rate of LFG extracted from the wells are measured and the landfill gas production flow rate is calculated.

2. Apparatus

2.1 Well Drilling Rig. Capable of boring a 0.6 meters diameter hole into the landfill to a minimum of 75 percent of the landfill depth. The depth of the well shall not exceed the bottom of the landfill or the liquid level.

2.2 Gravel. No fines. Gravel diameter should be appreciably larger than perforations stated in sections 2.10 and 3.2 of this method.

2.3 Bentonite.

2.4 Backfill Material. Clay, soil, and sandy loam have been found to be acceptable.

2.5 Extraction Well Pipe. Polyvinyl chloride (PVC), high density polyethylene (HDPE), fiberglass, stainless steel, or other suitable nonporous material capable of transporting landfill gas with a minimum diameter of 0.075 meters and suitable wall-thickness.

2.6 Wellhead Assembly. Valve capable of adjusting gas flow at the wellhead and outlet, and a flow measuring device, such as an in-line orifice meter or pitot tube. A schematic of the wellhead assembly is shown in figure 1.

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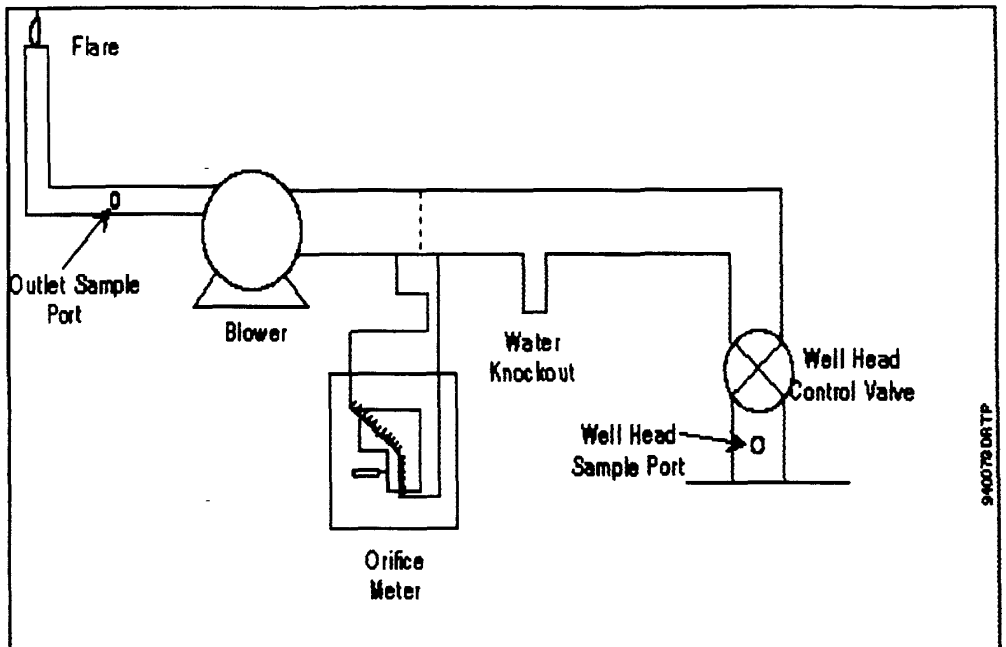

Figure 1. Schematic of above ground well head assembly.

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2.7 Cap. PVC, HDPE, fiberglass, stainless steel, or other suitable nonporous material capable of transporting landfill gas with a suitable wall-thickness.

2.8 Header Piping. PVC, HDPE, fiberglass, stainless steel, or other suitable nonporous material capable of transporting landfill gas with a suitable wall-thickness.

2.9 Auger. Capable of boring a 0.15 to 0.23 meters diameter hole to a depth equal to the top of the perforated section of the extraction well, for pressure probe installation.

2.10 Pressure Probe. PVC or stainless steel (316), 0.025 meters. Schedule 40 pipe. Perforate the bottom two thirds. A minimum requirement for perforations is slots or holes with an open area equivalent to four 6.0 millimeter diameter holes spaced 90° apart every 0.15 meters.

2.11 Blower and Flare Assembly. A water knockout, flare or incinerator, and an explosion-proof blower, capable of extracting LFG at a flow rate of at least 8.5 cubic meters per minute.

2.12 Standard Pitot Tube and Differential Pressure Gauge for Flow Rate Calibration with Standard Pitot. Same as Method 2, sections 2.1 and 2.8.

2.13 Gas flow measuring device. Permanently mounted Type S pitot tube or an orifice meter.

2.14 Barometer. Same as Method 4, section 2.1.5.

2.15 Differential Pressure Gauge. Water-filled U-tube manometer or equivalent, capable of measuring within 0.02 mm Hg, for measuring the pressure of the pressure probes.

3. Procedure

3.1 Placement of Extraction Wells. The landfill owner or operator shall either install a single cluster of three extraction wells in a test area or space five wells over the landfill. The cluster wells are recommended but may be used only if the composition, age of the solid waste, and the landfill depth of the test area can be determined. CAUTION: Since this method is complex, only experienced personnel should conduct the test. Landfill gas contains methane, therefore explosive mixtures may exist at or near the landfill. It is advisable to take appropriate safety precautions when testing landfills, such as installing explosion-proof equipment and refraining from smoking.

3.1.1 Cluster Wells. Consult landfill site records for the age of the solid waste, depth, and composition of various sections of the landfill. Select an area near the perimeter of the landfill with a depth equal to or greater than the average depth of the landfill and with the average age of the solid waste between 2 and 10 years old. Avoid areas known to contain nondecomposable materials, such as concrete and asbestos. Locate wells as shown in figure 2.

Because the age of the solid waste in a test area will not be uniform, calculate a weighted average to determine the average age of the solid waste as follows.

$$A_{avg} = \sum_{i=1}^{n} f_i A_i$$

where,

A_{avg}=average age of the solid waste tested, year

f_i=fraction of the solid waste in the ith section

A_i=age of the ith fraction, year

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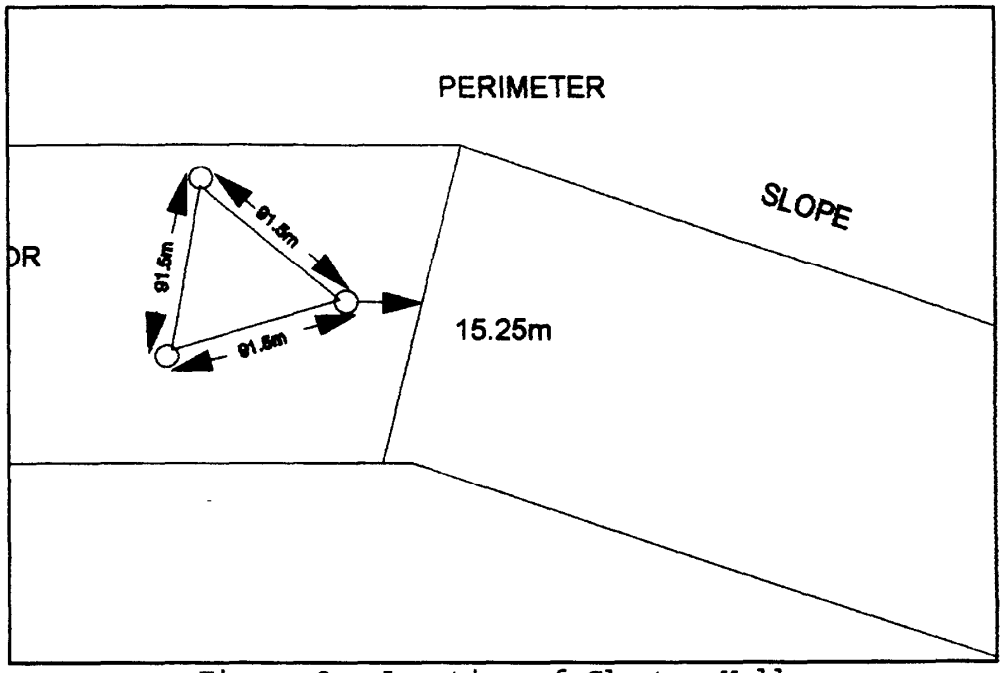

Figure 2. Location of Cluster Wells

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3.1.2 Equal Volume Wells. This procedure is used when the composition, age of solid waste, and landfill depth are not well known. Divide the portion of the landfill that has had waste for at least 2 years into five areas representing equal volumes. Locate an extraction well near the center of each area. Avoid areas known to contain nondecomposable materials, such as concrete and asbestos.

3.2 Installation of Extraction Wells. Use a well drilling rig to dig a 0.6 meters diameter hole in the landfill to a minimum of 75 percent of the landfill depth, not to exceed the bottom of the landfill or the water table. Perforate the bottom two thirds of the extraction well pipe. Perforations shall not be closer than 6 meters from the cover. Perforations shall be holes or slots with an open area equivalent to 1.0 centimeter diameter holes spaced 90 degrees apart every 0.1 to 0.2 meters. Place the extraction well in the center of the hole and backfill with 2.0 to 7.5 centimeters gravel to a level 0.3 meters above the perforated section. Add a layer of backfill material 1.2 meters thick. Add a layer of bentonite 1.0 meter thick, and backfill the remainder of the hole with cover material or material equal in permeability to the existing cover material. The specifications for extraction well installation are shown in figure 3.

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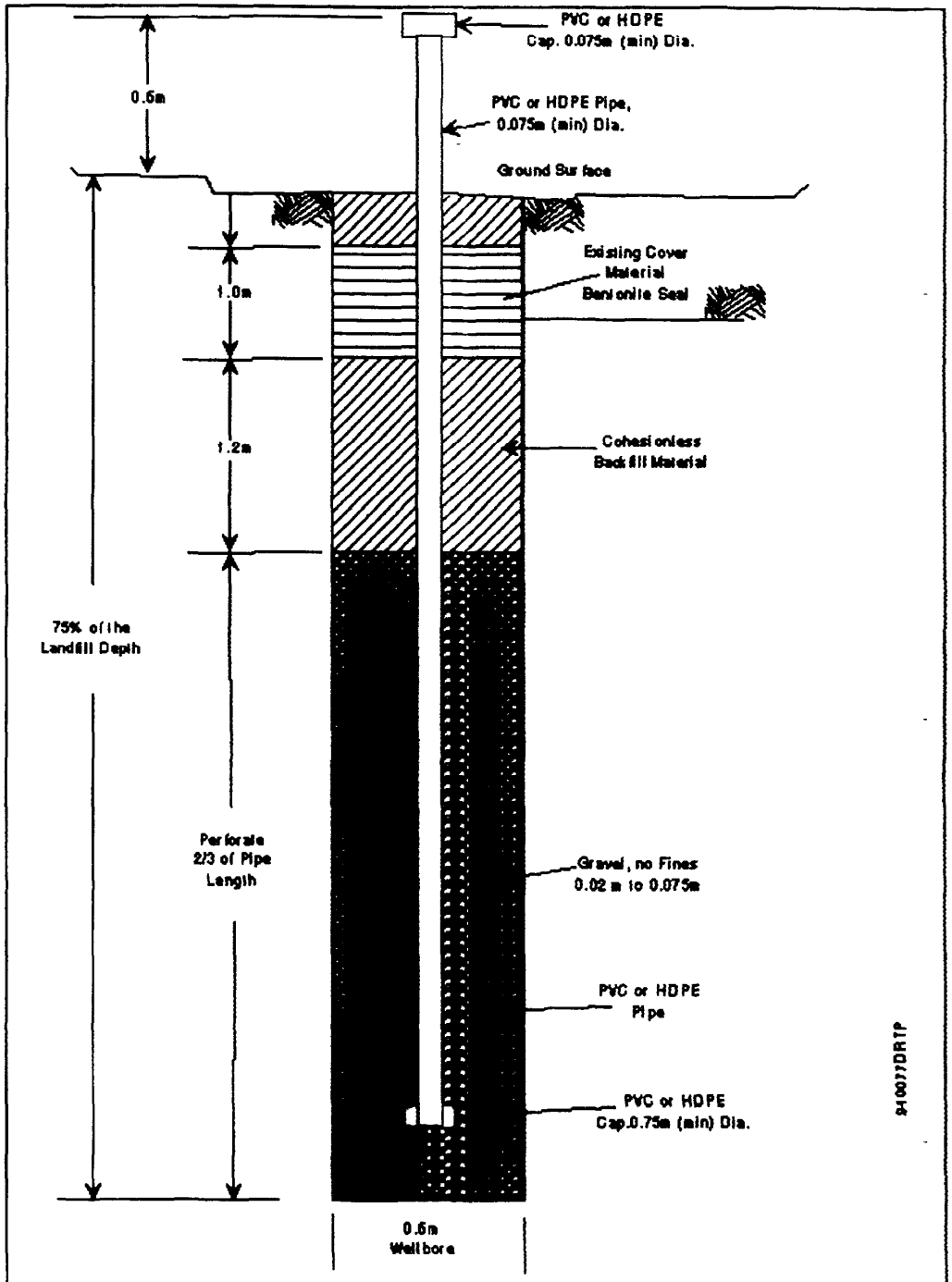

Figure 3. Gas extraction well.

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3.3 Pressure Probes. Shallow pressure probes are used in the check for infiltration of air into the landfill, and deep pressure probes are used to determine the radius of influence. Locate the deep pressure probes along three radial arms approximately 120 degrees apart at distances of 3, 15, 30, and 45 meters from the extraction well. The tester has the option of locating additional pressure probes at distances every 15 meters beyond 45 meters. Example placements of probes are shown in figure 4.

The probes located 15, 30, and 45 meters from each well, and any additional probes located along the three radial arms (deep probes), shall extend to a depth equal to the top of the perforated section of the extraction wells. Locate three shallow probes at a distance of 3 m from the extraction well. Shallow probes shall extend to a depth equal to half the depth of the deep probes.

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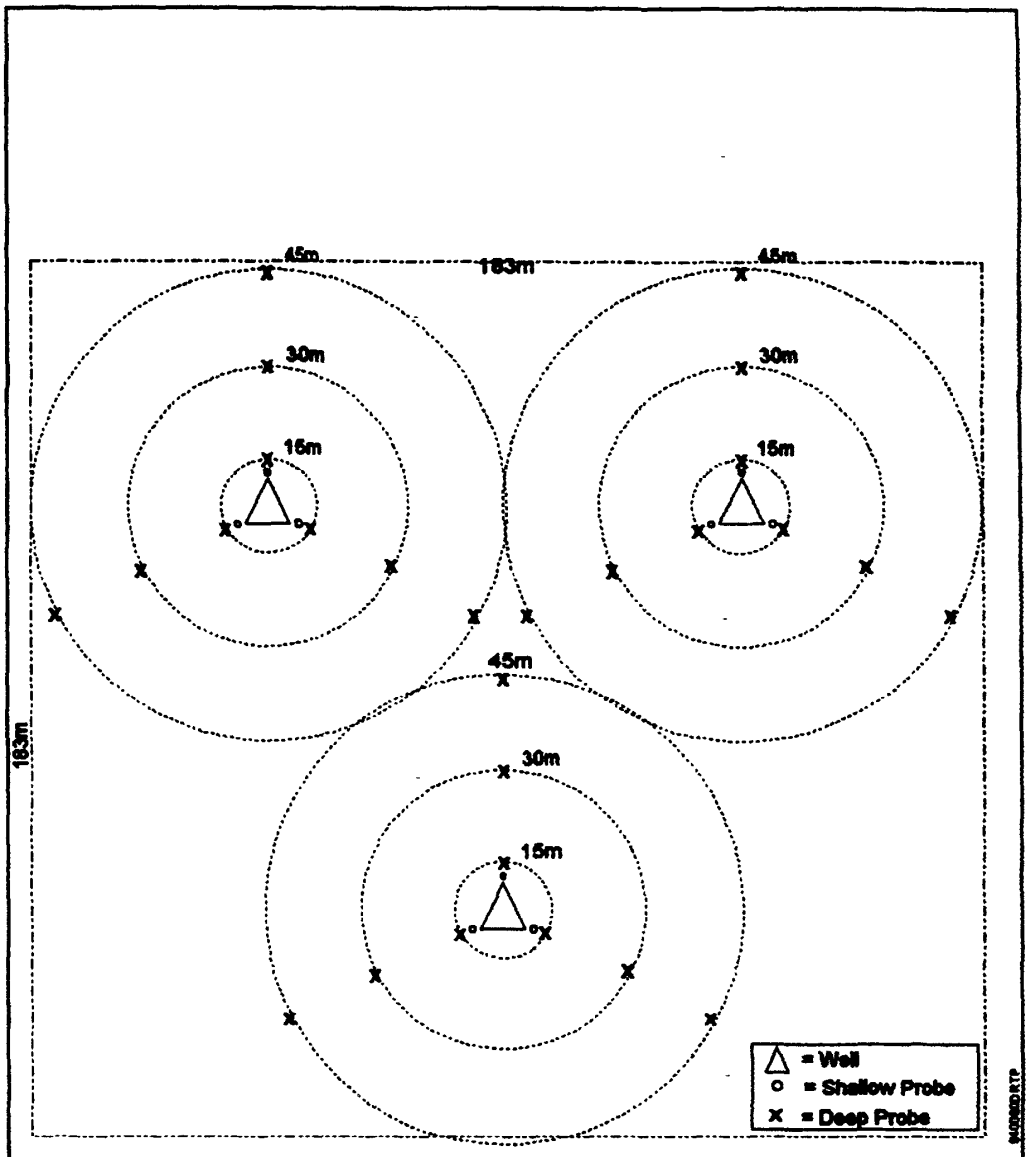

Figure 4. Cluster well configuration.

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Use an auger to dig a hole, approximately 0.15 to 0.23 meters in diameter, for each pressure probe. Perforate the bottom two thirds of the pressure probe. Perforations shall be holes or slots with an open area equivalent to four 6.0 millimeter diameter holes spaced 90 degrees apart every 0.15 meters. Place the pressure probe in the center of the hole and backfill with gravel to a level 0.30 meters above the perforated section. Add a layer of backfill material at least 1.2 meters thick. Add a layer of bentonite at least 0.3 meters thick, and backfill the remainder of the hole with cover material or material equal in permeability to the existing cover material. The specifications for pressure probe installation are shown in figure 5.

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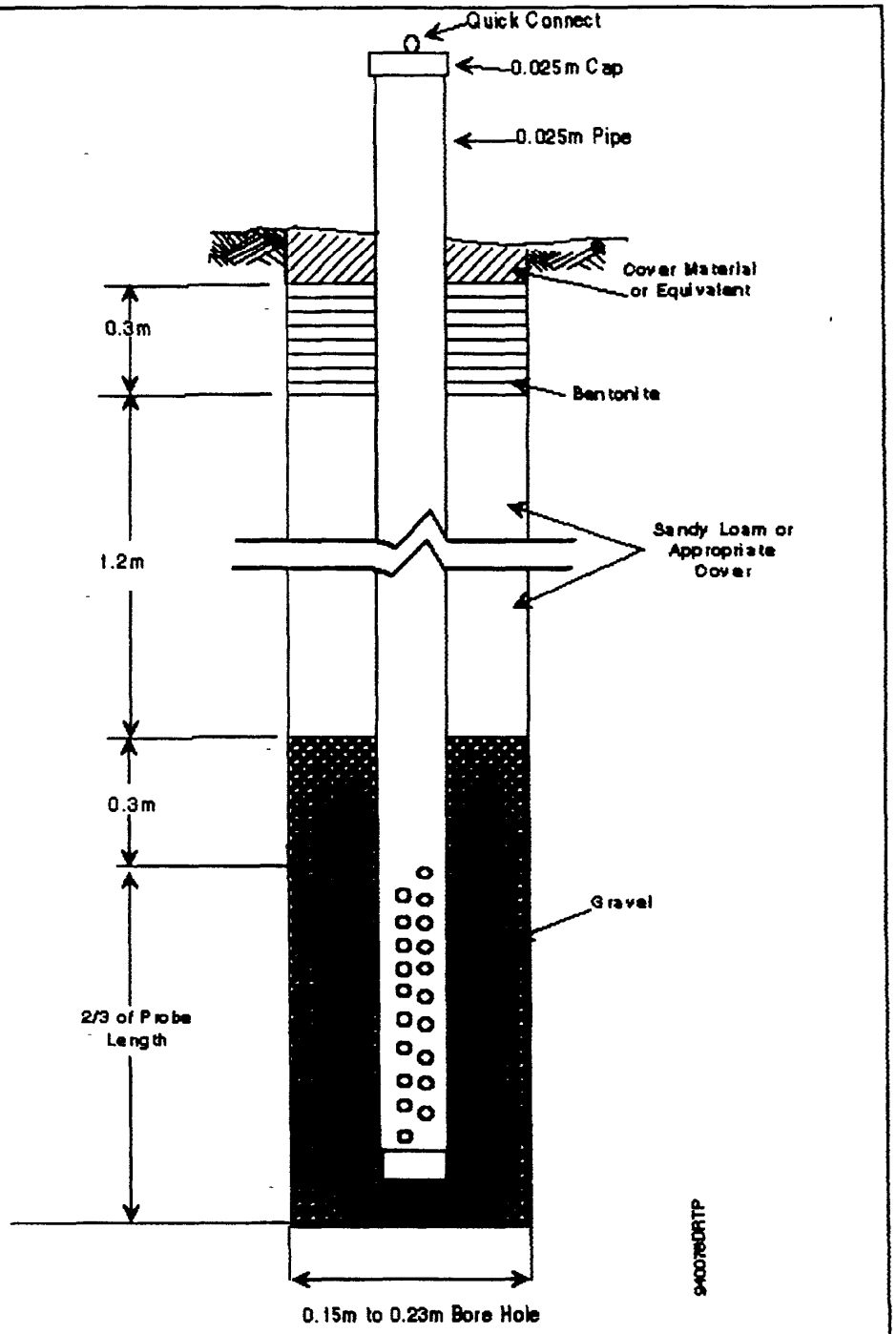

Figure 5. Pressure probe.

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3.4 LFG Flow Rate Measurement. Determine the flow rate of LFG from the test wells continuously during testing with an orifice meter. Alternative methods to measure the LFG flow rate may be used with approval of the Administrator. Locate the orifice meter as shown in figure 1. Attach the wells to the blower and flare assembly. The individual wells may be ducted to a common header so that a single blower and flare assembly and flow meter may be used. Use the procedures in section 4.1 to calibrate the flow meter.

3.5 Leak Check. A leak check of the above ground system is required for accurate flow rate measurements and for safety. Sample LFG at the wellhead sample port and at a point downstream of the flow measuring device. Use Method 3C to determine nitrogen (N_2) concentrations. Determine the difference by using the formula below.

$$\text{Difference}=C_o-C_w$$

where,

C_o=concentration of N_2 at the outlet, ppmv
C_w=concentration of N_2 at the wellhead, ppmv

The system passes the leak check if the difference is less than 10,000 ppmv. If the system fails the leak check, make the appropriate adjustments to the above ground system and repeat the leak check.

3.6 Static Testing. The purpose of the static testing is to determine the initial conditions of the landfill. Close the control valves on the wells so that there is no flow of landfill gas from the well. Measure the gauge pressure (P_g) at each deep pressure probe and the barometric pressure (P_{bar}) every 8 hours for 3 days. Convert the gauge pressure of each deep pressure probe to absolute pressure by using the following equation. Record as P_i.

$$P_i=P_{bar}+P_g$$

where,

P_{bar}=Atmospheric pressure, mm Hg
P_g=Gauge pressure of the deep probes, mm Hg
P_i=Initial absolute pressure of the deep probes during static testing, mm Hg

3.6.1 For each probe, average all of the 8 hr deep pressure probe readings and record as P_{ia}. The P_{ia} is used in section 3.7.6 to determine the maximum radius of influence.

3.6.2 Measure the LFG temperature and the static flow rate of each well once during static testing using a flow measurement device, such as a Type S pitot tube and measure the temperature of the landfill gas. The flow measurements should be made either just before or just after the measurements of the probe pressures and are used in determining the initial flow from the extraction well during the short term testing. The temperature measurement is used in the check for infiltration.

3.7 Short Term Testing. The purpose of short term testing is to determine the maximum vacuum that can be applied to the wells without infiltration of air into the landfill. The short term testing is done on one well at a time. During the short term testing, burn LFG with a flare or incinerator.

3.7.1 Use the blower to extract LFG from a single well at a rate at least twice the static flow rate of the respective well measured in section 3.6.2. If using a single blower and flare assembly and a common header system, close the control valve on the wells not being measured. Allow 24 hours for the system to stabilize at this flow rate.

3.7.2 Check for infiltration of air into the landfill by measuring the temperature of the LFG at the wellhead, the gauge pressures of the shallow pressure probes, and the LFG N_2 concentration by using Method 3C.

CAUTION: Increased vacuum at the wellhead may cause infiltration of air into the landfill, which increases the possibility of a landfill fire. Infiltration of air into the landfill may occur if any of the following conditions are met: the LFG N_2 concentration is more than 20 percent, any of the shallow probes have a negative gauge pressure, or the temperature has increased above 55°C or the maximum established temperature during static testing. If infiltration has not occurred, increase the blower vacuum by 4 mm Hg, wait 24 hours, and repeat the infiltration check. If at any time, the temperature change exceeds the limit, stop the test until it is safe to proceed. Continue the above steps of increasing blower vacuum by 4 mm Hg, waiting 24 hours, and checking for infiltration until the concentration of N_2 exceeds 20 percent or any of the shallow probes have a negative gauge pressure, at which time reduce the vacuum at the wellhead so that the N_2 concentration is less than 20 percent and the gauge pressures of the shallow probes are positive. This is the maximum vacuum at which infiltration does not occur.

3.7.3 At this maximum vacuum, measure P_{bar} every 8 hours for 24 hours and record the LFG flow rate as Q_s and the probe gauge pressures for all of the probes as P_f. Convert the gauge pressures of the deep probes to absolute pressures for each 8-hour reading at Q_s as follows:

$$P=P_{bar}+P_f$$

where,

P_{bar}=Atmospheric pressure, mm Hg
P_f=Final absolute pressure of the deep probes during short term testing, mm Hg
P=Pressure of the deep probes, mm Hg

3.7.4 For each probe, average the 8-hr deep pressure probe readings and record as P_{fa}.

3.7.5 For each probe, compare the initial average pressure (P_{ia}) from section 3.6.1 to the final average pressure (P_{fa}). Determine the furthermost point from the wellhead along each radial arm where $P_{fa} \leq P_{ia}$. This distance is the maximum radius of influence (ROI), which is the distance from the well affected by the vacuum. Average these values to determine the average maximum radius of influence (R_{ma}).

The average R_{ma} may also be determined by plotting on semi-log paper the pressure differentials (P_{fa}-P_{ia}) on the y-axis (abscissa) versus the distances (3, 15, 30 and 45 meters) from the wellhead on the x-axis (ordinate). Use a linear regression analysis to determine the distance when the pressure differential is zero. Additional pressure probes may be used to obtain more points on the semi-long plot of pressure differentials versus distances.

3.7.6 Calculate the depth (D_{st}) affected by the extraction well during the short term test as follows. If the computed value of D_{st} exceeds the depth of the landfill, set D_{st} equal to the landfill depth.

$$D_{st}=WD+R_{ma}^2$$

where,

D_{st}=depth, m
WD=well depth, m
R_{ma}=maximum radius of influence, m

3.7.7 Calculate the void volume for the extraction well (V) as follows.

$$V=0.40\,\pi\,R_{ma}^2\,D_{st}$$

where,

V=void volume of test well, m^3
R_{ma}=maximum radius of influence, m
D_{st}=depth, m

3.7.8 Repeat the procedures in section 3.7 for each well.

3.8 Calculate the total void volume of the test wells (V_v) by summing the void volumes (V) of each well.

3.9 Long Term Testing. The purpose of long term testing is to determine the methane generation rate constant, k. Use the blower to extract LFG from the wells. If a single blower and flare assembly and common header system are used, open all control valves and set the blower vacuum equal to the highest stabilized blower vacuum demonstrated by any individual well in section 3.7. Every 8 hours, sample the LFG from the wellhead sample port, measure the gauge pressures of the shallow pressure probes, the blower vacuum, the LFG flow rate, and use the criteria for infiltration in section 3.7.2 and Method 3C to check for infiltration. If infiltration is detected, do not reduce the blower vacuum, but reduce the LFG flow rate from the well by adjusting the control valve on the wellhead. Adjust each affected well individually. Continue until the equivalent of two total void volumes (V_v) have been extracted, or until $V_t=2\,V_v$.

3.9.1 Calculate V_t, the total volume of LFG extracted from the wells, as follows.

$$V_t=\sum_{i=1}^{n} 60\,Q_i\,t_{vi}$$

where,

V_t=total volume of LFG extracted from wells, m^3
Q_i=LFG flow rate measured at orifice meter at the ith interval, cubic meters per minute
t_{vi}=time of the ith interval, hour (usually 8)

3.9.2 Record the final stabilized flow rate as Q_f. If, during the long term testing, the flow rate does not stabilize, calculate Q_f by averaging the last 10 recorded flow rates.

3.9.3 For each deep probe, convert each gauge pressure to absolute pressure as in section 3.7.4. Average these values and record as P_{sa}. For each probe, compare P_{ia} to P_{sa}. Determine the furthermost point from the wellhead along each radial arm where $P_{sa} \leq P_{ia}$. This distance is the stabilized radius of influence. Average these values to determine the average stabilized radius of influence (R_{sa}).

3.10 Determine the NMOC mass emission rate using the procedures in section 5.

3.11 Deactivation of pressure probe holes. Upon completion of measurements, if pressure probes are removed, restore the

integrity of the landfill cover by backfilling and sealing to prevent venting of LFG to the atmosphere or air infiltration.

4. Calibrations

Gas Flow Measuring Device Calibration Procedure. Locate a standard pitot tube in line with a gas flow measuring device. Use the procedures in Method 2D, section 4, to calibrate the orifice meter. Method 3C may be used to determine the dry molecular weight. It may be necessary to calibrate more than one gas flow measuring device to bracket the landfill gas flow rates. Construct a calibration curve by plotting the pressure drops across the gas flow measuring device for each flow rate versus the average dry gas volumetric flow rate in cubic meters per minute of the gas. Use this calibration curve to determine the volumetric flow from the wells during testing.

5. Calculations

5.1 Nomenclature.

A_{avg}=average age of the solid waste tested, year
A_i=age of solid waste in the ith fraction, year
A=age of landfill, year
A_r=acceptance rate, megagrams per year
C_{NMOC}=NMOC concentration, ppmv as hexane ($C_{NMOC}=C_t/6$)
C_t=NMOC concentration, ppmv (carbon equivalent) from Method 25C
D = depth affected by the test wells, m
D_{st}=depth affected by the test wells in the short term test, m
D_{LF}=landfill depth, m
f = fraction of decomposable solid waste in the landfill
f_i=fraction of the solid waste in the ith section
k=methane generation rate constant, $year^{-1}$
L_o=methane generation potential, cubic meters per megagram
L_o=revised methane generation potential to account for the amount of nondecomposable material in the landfill, cubic meters per megagram
M_i=mass of solid waste of the ith section, megagrams
M_r=mass of decomposable solid waste affected by the test well, megagrams
M_w=number of wells
P_{bar}=atmospheric pressure, mm Hg
P_g=gauge pressure of the deep pressure probes, mm Hg
P_i=initial absolute pressure of the deep pressure probes during static testing, mm Hg
P_{ia}=average initial absolute pressure of the deep pressure probes during static testing, mm Hg
P_f=final absolute pressure of the deep pressure probes during short term testing, mm Hg
P_{fa}=average final absolute pressure of the deep pressure probes during short term testing, mm Hg
P_s=final absolute pressure of the deep pressure probes during long term testing, mm Hg
P_{sa}=average final absolute pressure of the deep pressure probes during long term testing, mm Hg
Q_B=required blow flow rate, cubic meters per minute
Q_f=final stabilized flow rate, cubic meters per minute
Q_i=LFG flow rate measured at orifice meter during the ith interval, cubic meters per minute
Q_s=maximum LFG flow rate at each well determined by short term test, cubic meters per minute
Q_t=NMOC mass emission rate, cubic meters per minute
R_m=maximum radius of influence, m
R_{ma}=average maximum radius of influence, m
R_s=stabilized radius of influence for an individual well, m
R_{sa}=average stabilized radius of influence, m
t_i=age of section i, year
t_t=total time of long term testing, year
V=void volume of test well, m^3
V_r=volume of solid waste affected by the test well, m^3
V_t=total volume of solid waste affected by the long term testing, m^3
V_v=total void volume affected by test wells, m^3
WD=well depth, m
ρ=solid waste density, m^3 (Assume 0.64 megagrams per cubic meter if data are unavailable)

5.2 Use the following equation to calculate the depth affected by the test well. If using cluster wells, use the average depth of the wells for WD. If the value of D is greater than the depth of the landfill, set D equal to the landfill depth.

$D=WD+R_{sa}$

5.3 Use the following equation to calculate the volume of solid waste affected by the test well.

$V_r=R_{sa}^2 \pi D$

5.4 Use the following equation to calculate the mass affected by the test well.

$M_r=V_r\rho$

5.5 Modify L_o to account for the nondecomposable solid waste in the landfill.

$L_o'=f L_o$

5.6 In the following equation, solve for k by iteration. A suggested procedure is to select a value for k, calculate the left side of the equation, and if not equal to zero, select another value for k. Continue this process until the left hand side of the equation equals zero, #0.001.

$$ke^{-k}A_{avg}-\left(5.256\times10^5\right)\frac{Q_f}{2\,L_o'\,M_r}=0$$

5.7 Use the following equation to determine landfill NMOC mass emission rate if the yearly acceptance rate of solid waste has been consistent (±10 percent) over the life of the landfill.

$Q_t = 2\,L_o'\,A_r\,(1 - e^{-k}A)\,C_{NMOC} / (5.256 \times 10^{11})$

5.8 Use the following equation to determine landfill NMOC mass emission rate if the acceptance rate has not been consistent over the life of the landfill.

$$Q_t=\frac{2\,kL_o'\,C_{NMOC}}{\left(5.256\times10^{11}\right)}\sum_{i=1}^{n}M_i e^{-kt_i}$$

6. Bibliography

1. Same as Method 2, appendix A, 40 CFR part 60.
2. Emcon Associates, Methane Generation and Recovery from Landfills. Ann Arbor Science, 1982.
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4. Mandeville and Associates, Procedure Manual for Landfill Gases Emission Testing.
5. Letter and attachments from Briggum, S., Waste Management of North America, to Thorneloe, S., EPA. Response to July 28, 1988 request for additional information. August 18,1988.
6. Letter and attachments from Briggum, S., Waste Management of North America, to Wyatt, S., EPA. Response to December 7, 1988 request for additional information. January 16, 1989.

* * * * *

Method 3C—Determination of Carbon Dioxide, Methane, Nitrogen, and Oxygen From Stationary Sources

1. Applicability and Principle

1.1 Applicability. This method applies to the analysis of carbon dioxide (CO_2), methane (CH_4), nitrogen (N_2), and oxygen (O_2) in samples from municipal solid waste landfills and other sources when specified in an applicable subpart.

1.2 Principle. A portion of the sample is injected into a gas chromatograph (GC) and the CO_2, CH_4, N_2, and O_2 concentrations are determined by using a thermal conductivity detector (TCD) and integrator.

2. Range and Sensitivity

2.1 Range. The range of this method depends upon the concentration of samples. The analytical range of TCD's is generally between approximately 10 ppmv and the upper percent range.

2.2 Sensitivity. The sensitivity limit for a compound is defined as the minimum detectable concentration of that compound, or the concentration that produces a signal-to-noise ratio of three to one. For CO_2, CH_4, N_2, and O_2, the sensitivity limit is in the low ppmv range.

3. Interferences

Since the TCD exhibits universal response and detects all gas components except the carrier, interferences may occur. Choosing the appropriate GC or shifting the retention times by changing the column flow rate may help to eliminate resolution interferences.

To assure consistent detector response, helium is used to prepare calibration gases. Frequent exposure to samples or carrier gas containing oxygen may gradually destroy filaments.

4. Apparatus

4.1 Gas Chromatograph. GC having at least the following components:

4.1.1 Separation Column. Appropriate column(s) to resolve CO_2, CH_4, N_2, O_2, and other gas components that may be present in the sample.

4.1.2 Sample Loop. Teflon or stainless steel tubing of the appropriate diameter.

Note: Mention of trade names or specific products does not constitute endorsement or recommendation by the U. S. Environmental Protection Agency.

4.1.3 Conditioning System. To maintain the column and sample loop at constant temperature.

4.1.4 Thermal Conductivity Detector.

4.2 Recorder. Recorder with linear strip chart. Electronic integrator (optional) is recommended.

4.3 Teflon Tubing. Diameter and length determined by connection requirements of cylinder regulators and the GC.

4.4 Regulators. To control gas cylinder pressures and flow rates.

4.5 Adsorption Tubes. Applicable traps to remove any O_2 from the carrier gas.

5. Reagents

5.1 Calibration and Linearity Gases. Standard cylinder gas mixtures for each compound of interest with at least three concentration levels spanning the range of suspected sample concentrations. The calibration gases shall be prepared in helium.

5.2 Carrier Gas. Helium, high-purity.

6. Analysis

6.1 Sample Collection. Use the sample collection procedures described in Methods 3 or 25C to collect a sample of landfill gas (LFG).

6.2 Preparation of GC. Before putting the GC analyzer into routine operation, optimize the operational conditions according to the manufacturer's specifications to provide good resolution and minimum analysis time. Establish the appropriate carrier gas flow and set the detector sample and reference cell flow rates at exactly the same levels. Adjust the column and detector temperatures to the recommended levels. Allow sufficient time for temperature stabilization. This may typically require 1 hour for each change in temperature.

6.3 Analyzer Linearity Check and Calibration. Perform this test before sample analysis. Using the gas mixtures in section 5.1, verify the detector linearity over the range of suspected sample concentrations with at least three points per compound of interest. This initial check may also serve as the initial instrument calibration. All subsequent calibrations may be performed using a single-point standard gas provided the calibration point is within 20 percent of the sample component concentration. For each instrument calibration, record the carrier and detector flow rates, detector filament and block temperatures, attenuation factor, injection time, chart speed, sample loop volume, and component concentrations. Plot a linear regression of the standard concentrations versus area values to obtain the response factor of each compound. Alternatively, response factors of uncorrected component concentrations (wet basis) may be generated using instrumental integration. Note: Peak height may be used instead of peak area throughout this method.

6.4 Sample Analysis. Purge the sample loop with sample, and allow to come to atmospheric pressure before each injection. Analyze each sample in duplicate, and calculate the average sample area (A). The results are acceptable when the peak areas for two consecutive injections agree within 5 percent of their average. If they do not agree, run additional samples until consistent area data are obtained. Determine the tank sample concentrations according to section 7.2.

7. Calculations

Carry out calculations retaining at least one extra decimal figure beyond that of the acquired data. Round off results only after the final calculation.

7.1 Nomenclature.

A = average sample area

B_w = moisture content in the sample, fraction

C = component concentration in the sample, dry basis, ppmv

C_t = calculated NMOC concentration, ppmv C equivalent

C_{tm} = measured NMOC concentration, ppmv C equivalent

P_{bar} = barometric pressure, mm Hg

P_{ti} = gas sample tank pressure after evacuation, mm Hg absolute

P_t = gas sample tank pressure after sampling, but before pressurizing, mm Hg absolute

P_{tf} = final gas sample tank pressure after pressurizing, mm Hg absolute

P_w = vapor pressure of H_2O (from table 3C–1), mm Hg

T_{ti} = sample tank temperature before sampling, °K

T_t = sample tank temperature at completion of sampling, °K

T_{tf} = sample tank temperature after pressurizing, °K

r = total number of analyzer injections of sample tank during analysis (where j = injection number, 1 . . . r)

R = Mean calibration response factor for specific sample component, area/ppmv

TABLE 3C–1.—MOISTURE CORRECTION

Temperature °C	Vapor Pressure of H_2O, mm Hg
4	6.1
6	7.0
8	8.0
10	9.2
12	10.5
14	12.0
16	13.6
18	15.5
20	17.5
22	19.8
24	22.4
26	25.2
28	28.3
30	31.8

7.2 Concentration of Sample Components. Calculate C for each compound using Equations 3C–1 and 3C–2. Use the temperature and barometric pressure at the sampling site to calculate Bw. If the sample was diluted with helium using the procedures in Method 25C, use Equation 3C–3 to calculate the concentration.

$$B_w = \frac{P_w}{P_{bar}} \qquad 3C\text{-}1$$

$$C = \frac{A}{R(1 - B_w)} \qquad 3C\text{-}2$$

$$C = \frac{\frac{P_{tf}}{T_{tf}}}{\frac{P_t}{T_t} - \frac{P_{ti}}{T_{ti}}} \quad \frac{A}{R(1 - B_w)} \qquad 3C\text{-}3$$

8. Bibliography

1. McNair, H.M., and E.J. Bonnelli. Basic Gas Chromatography. Consolidated Printers, Berkeley, CA. 1969.

* * * * *

Method 25C—Determination of Nonmethane Organic Compounds (NMOC) in MSW Landfill Gases

1. Applicability and Principle

1.1 Applicability. This method is applicable to the sampling and measurement of nonmethane organic compounds (NMOC) as carbon in MSW landfill gases.

1.2 Principle. A sample probe that has been perforated at one end is driven or augered to a depth of 1.0 meter below the bottom of the landfill cover. A sample of the landfill gas is extracted with an evacuated cylinder. The NMOC content of the gas is determined by injecting a portion of the gas into a gas chromatographic column to separate the NMOC from carbon monoxide (CO), carbon dioxide (CO_2), and methane (CH_4); the NMOC are oxidized to CO_2, reduced to CH_4, and measured by a flame ionization detector (FID). In this manner, the variable response of the FID associated with different types of organics is eliminated.

2. Apparatus

2.1 Sample Probe. Stainless steel, with the bottom third perforated. The sample probe shall be capped at the bottom and shall have a threaded cap with a sampling attachment at the top. The sample probe shall be long enough to go through and extend no less than 1.0 meter below the landfill cover. If the sample probe is to be driven into the landfill, the bottom cap should be designed to facilitate driving the probe into the landfill.

2.2 Sampling Train.

2.2.1 Rotameter with Flow Control Valve. Capable of measuring a sample flow rate of 500 ml/min or less (30.5±3.1 m^3/min). The control valve shall be made of stainless steel.

2.2.2 Sampling Valve. Stainless steel.

2.2.3 Pressure Gauge. U-tube mercury manometer, or equivalent, capable of measuring pressure to within 1 mm Hg in the range of 0 to 1,100 mm Hg.

2.2.4 Sample Tank. Stainless steel or aluminum cylinder, with a minimum volume of 4 liters and equipped with a stainless steel sample tank valve.

2.3 Vacuum Pump. Capable of evacuating to an absolute pressure of 10 mm Hg.

2.4 Purging Pump. Portable, explosion proof, and suitable for sampling NMOC.

2.5 Pilot Probe Procedure. The following are needed only if the tester chooses to use the procedure described in section 4.2.1.

2.5.1 Pilot Probe. Tubing of sufficient strength to withstand being driven into the landfill by a post driver and an outside diameter of at least 6.0 millimeters smaller than the sample probe. The pilot probe shall be capped on both ends and long enough to go through the landfill cover and extend no less than 1.0 meter into the landfill.

2.5.2 Post Driver and Compressor. Capable of driving the pilot probe and the sampling probe into the landfill.

2.6 Auger Procedure. The following are needed only if the tester chooses to use the procedure described in section 4.2.2.

2.6.1 Auger. Capable of drilling through the landfill cover and to a depth of no less than 0.9 meters into the landfill.

2.6.2 Pea Gravel.

2.6.3 Bentonite.

2.7 NMOC Analyzer, Barometer, Thermometer, and Syringes. Same as in sections 2.3, 2.4.1, 2.4.2, 2.4.4, respectively, of Method 25.

3. Reagents

3.1 NMOC Analysis. Same as in Method 25, section 3.2.

3.2 Calibration. Same as in Method 25, section 3.4, except omit section 3.4.3.

4. Procedure

4.1 Sample Tank Evacuation and Leak Check. Conduct the sample tank evacuation and leak check either in the laboratory or the field. Connect the pressure gauge and sampling valve to the sample tank. Evacuate the sample tank to 10 mm Hg absolute pressure or less. Close the sampling valve, and allow the tank to sit for 60 minutes. The tank is acceptable if no change is noted. Include the results of the leak check in the test report.

4.2 Sample Probe Installation. The tester may use the procedure in sections 4.2.1 or 4.2.2. CAUTION: Since this method is complex, only experienced personnel should perform this test. LFG contains methane, therefore explosive mixtures may exist on or near the landfill. It is advisable to take appropriate safety precautions when testing landfills, such as refraining from smoking and installing explosion-proof equipment.

4.2.1 Pilot Probe Procedure. Use the post driver to drive the pilot probe at least 1.0 meter below the landfill cover. Alternative procedures to drive the probe into the landfill may be used subject to the approval of the Administrator.

Remove the pilot probe and drive the sample probe into the hole left by the pilot probe. The sample probe shall extend not less than 1.0 meter below the landfill cover and shall protrude about 0.3 meters above the landfill cover. Seal around the sampling probe with bentonite and cap the sampling probe with the sampling probe cap.

4.2.2 Auger Procedure. Use an auger to drill a hole through the landfill cover and to at least 1.0 meter below the landfill cover. Place the sample probe in the hole and backfill with pea gravel to a level 0.6 meters from the surface. The sample probe shall protrude at least 0.3 meters above the landfill cover. Seal the remaining area around the probe with bentonite. Allow 24 hours for the landfill gases to equilibrate inside the augered probe before sampling.

4.3 Sample Train Assembly. Prepare the sample by evacuating and filling the sample tank with helium three times. After the third evacuation, charge the sample tank with helium to a pressure of approximately 325 mm Hg. Record the pressure, the ambient temperature, and the barometric pressure. Assemble the sampling probe purging system as shown in figure 1.

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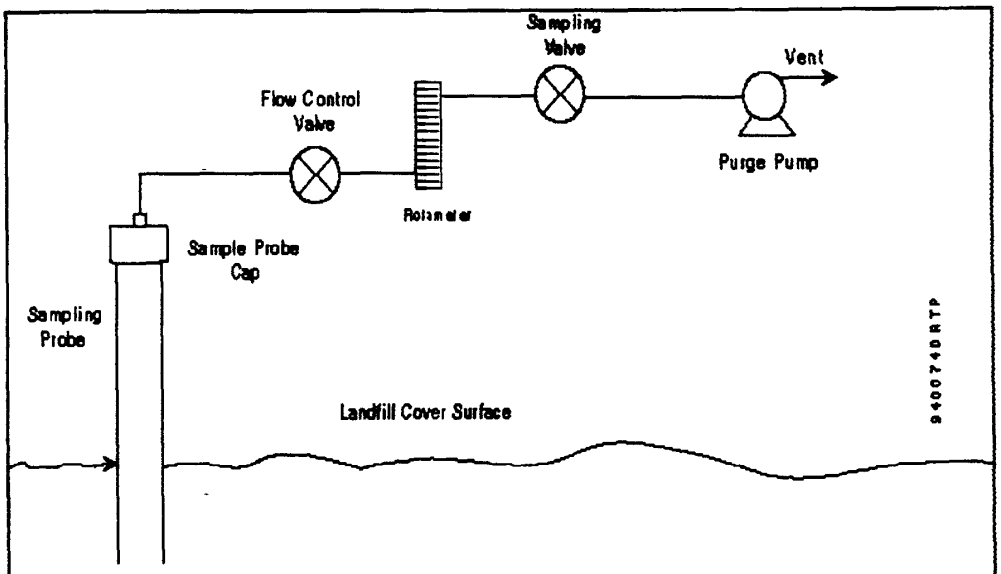

Figure 1. Schematic of sampling probe purging system.

4.4 Sampling Procedure. Open the sampling valve and use the purge pump and the flow control valve to evacuate at least two sample probe volumes from the system at a flow rate of 500 ml/min or less (30.5±3.1 m^3/min). Close the sampling valve and replace the purge pump with the sample tank apparatus as shown in figure 2. Open the sampling valve and the sample tank valves and, using the flow control valve, sample at a flow rate of 500 ml/min or less (30.5±3.1 m^3/min) until the sample tank gauge pressure is zero. Disconnect the sampling tank apparatus and use the carrier gas bypass valve to pressurize the sample cylinder to approximately 1,060 mm Hg absolute pressure with helium and record the final pressure. Alternatively, the sample tank may be pressurized in the lab. If not analyzing for N_2, the sample cylinder may be pressurized with zero air. Use Method 3C to determine the percent N_2 in the sample. Presence of N_2 indicates infiltration of ambient air into the gas sample. The landfill sample is acceptable if the concentration of N_2 is less than 20 percent.

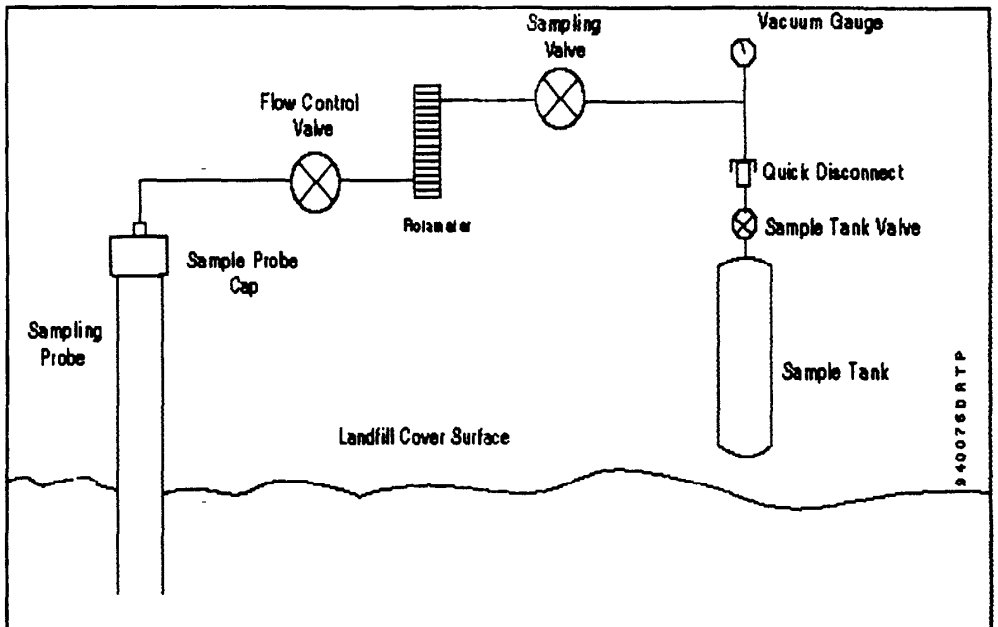

Figure 2. Schematic of sampling train.

4.5 Analysis. The oxidation, reduction, and measurement of NMOC is similar to Method 25. Before putting the NMOC analyzer into routine operation, conduct an initial performance test. Start the analyzer, and perform all the necessary functions to put the analyzer into proper working order. Conduct the performance test according to the procedures established in section 5.1. Once the performance test has been successfully completed and the NMOC calibration response factor has been determined, proceed with sample analysis as follows:

4.5.1 Daily Operations and Calibration Checks. Before and immediately after the analysis of each set of samples or on a daily basis (whichever occurs first), conduct a calibration test according to the procedures established in section 5.2. If the criteria of the daily calibration test cannot be met, repeat the NMOC analyzer performance test (section 5.1) before proceeding.

4.5.2 Operating Conditions. Same as in Method 25, section 4.4.2.

4.5.3 Analysis of Sample Tank. Purge the sample loop with sample, and then inject the sample. Under the specified operating conditions, the CO_2 in the sample will elute in approximately 100 seconds. As soon as the detector response returns to baseline following the CO_2 peak, switch the carrier gas flow to backflush, and raise the column oven temperature to 195 °C as rapidly as possible. A rate of 30 °C/min has been shown to be adequate. Record the value obtained for any measured NMOC. Return the column oven temperature to 85 °C in preparation for the next analysis. Analyze each sample in triplicate, and report the average as C_{tm}.

4.6 Audit Samples. Same as in Method 25, section 4.5.

4.7 Deactivation of Sample Probe Holes. Once sampling has taken place, either plug the sampling probes with a cap or remove the probes and refill the hole with cover material.

5. Calibration and Operational Checks

Maintain a record of performance of each item.

5.1 Initial NMOC Analyzer Performance Test. Same as in Method 25, section 5.2, except omit the linearity checks for CO_2 standards.

5.2 NMOC Analyzer Daily Calibration. NMOC response factors, same as in Method 25, section 5.3.2.

6. Calculations

All equations are written using absolute pressure; absolute pressures are determined by adding the measured barometric pressure to the measured gauge of manometer pressure.

6.1 Nomenclature.

B_w=moisture content in the sample, fraction
C_{N2}=measured N_2 concentration, fraction
C_t=calculated NMOC concentration, ppmv C equivalent
C_{tm}=measured NMOC concentration, ppmv C equivalent
P_b=barometric pressure, mm Hg
P_{ti}=gas sample tank pressure before sampling, mm Hg absolute
P_t=gas sample tank pressure at completion of sampling, but before pressurizing, mm Hg absolute
P_{tf}=final gas sample tank pressure after pressurizing, mm Hg absolute
P_w=vapor pressure of H_2O (from table 25C–1), mm Hg
T_{ti}=sample tank temperature before sampling, °K
T_t=sample tank temperature at completion of sampling, but before pressuring, °K
T_{tf}=sample tank temperature after pressurizing, °K
r=total number of analyzer injections of sample tank during analysis (where j=injection number, 1. . .r)

6.2 Water Correction. Use table 25C–1, the LFG temperature, and barometric pressure at the sampling site to calculate B_w.

$$B_w = \frac{P_w}{P_b}$$

TABLE 25C–1.—MOISTURE CORRECTION

Temperature, °C	Vapor Pressure of H_2O, mm Hg
4	6.1
6	7.0
8	8.0
1	9.2
12	10.5
14	12.0
16	13.6
18	15.5
20	17.5
22	19.8
24	22.4
26	25.2
28	28.3
30	31.8

6.3 NMOC Concentration. Use the following equation to calculate the concentration of NMOC for each sample tank.

$$C_t = \frac{\frac{P_{tf}}{T_{tf}}}{\frac{P_t}{T_t} - \frac{P_{tu}}{T_{tu}}} \; \frac{1}{\left(1 - B_w - C_{N2}\right) r} \sum_{j=1}^{r} C_{tm}^{(j)}$$

7. Bibliography

1. Salon, Albert E., Samuel Witz, and Robert D. MacPhee. Determination of Solvent Vapor Concentrations by Total Combustion Analysis: A Comparison of Infrared with Flame Ionization Detectors. Paper No. 75-33.2. (Presented at the 68th Annual Meeting of the Air Pollution Control Association. Boston, Massachusetts. June 15-20, 1975.) p. 14.

2. Salon, Albert E., William L. Oaks, and Robert D. MacPhee. Measuring the Organic Carbon Content of Source Emissions for Air Pollution Control. Paper No. 74-190. (Presented at the 67th Annual Meeting of the Air Pollution Control Association. Denver, Colorado. June 9-13, 1974.) p. 25.

[FR Doc. 96-5529 Filed 3-11-96; 8:45 am]

BILLING CODE 6560-50-P

FEDERAL MARITIME COMMISSION

46 CFR Part 501

The Federal Maritime Commission—General

AGENCY: Federal Maritime Commission.

ACTION: Final rule.

SUMMARY: The Federal Maritime Commission is revising its statement of delegations of authorities to include new authority delegated to the Director of the Bureau of Economics and Agreement Analysis to grant or deny applications for waivers of certain regulations.

EFFECTIVE DATE: March 12, 1996.

FOR FURTHER INFORMATION CONTACT: Austin L. Schmitt, Director, Bureau of Economics and Agreement Analysis, Federal Maritime Commission, 800 North Capitol Street, NW., Washington, DC 20573-0001, (202) 523-5787.

SUPPLEMENTARY INFORMATION: In Docket No. 94-31, *Information Form and Post-Effective Reporting Requirements for Agreements Among Ocean Common Carriers Subject to the Shipping Act of 1984*, the Federal Maritime Commission ("Commission") has amended its regulations set forth in 46 CFR Part 572 governing the filing, processing and review of agreements among ocean common carriers subject to the Shipping Act of 1984. The amended regulations provide that, upon a showing of good cause, the Commission may waive any part of their requirements, and set forth procedures and standards governing applications for a waiver.

This rule amends the Commission's statement of delegations of authorities in 46 CFR Part 501 to include a new delegation to the Director of the Commission's Bureau of Economics and Agreement Analysis to grant or deny applications for waivers of the agreement regulations. Review of the Director's grant or denial of a waiver is available under the procedures already in effect pursuant to 46 CFR 501.21(f).

Notice and opportunity for public comment were not necessary prior to issuance of this rule and because it deals solely with matters of agency organization and procedure. 5 U.S.C. 553.

List of Subjects in 46 CFR Part 501

Administrative practice and procedure; authority delegations; organization and functions; seals and insignia.

Therefore, pursuant to 5 U.S.C. 551-557, 701-706, 2903 and 6304; 31 U.S.C. 3721; 41 U.S.C. 414 and 418; 44 U.S.C. 501-520 and 3501-3520; 46 U.S.C. app. 801-848, 876, 1111 and 1701-1720; Reorganization Plan No. 7 of 1961, 26 FR 7315, August 12, 1961; Pub. L. 89-56, 79 Stat. 195; and 5 CFR Part 2638, Part 501 of Title 46, Code of Federal Regulations, is amended to read as follows:

PART 501—THE FEDERAL MARITIME COMMISSION—GENERAL

1. The authority citation for Part 501 continues to read as follows:

Authority: 5 U.S.C. 551-557, 701-706, 2903 and 6304; 31 U.S.C. 3721; 41 U.S.C. 414 and 418; 44 U.S.C. 501-520 and 3501-3520; 46 U.S.C. app. 801-848, 876, 1111 and 1701-1720; Reorganization Plan No. 7 of 1961, 26 FR 7315, August 12, 1961; Pub. L. 89-56, 79 Stat. 195; 5 CFR Part 2638.

2. In section 501.26, paragraph (f) is amended by changing the reference to "572.404" to "572.406," and by changing the references to "572.501 and 572.502" to "572.404 and 572.405;" paragraphs (g) through (m) are redesignated (i) through (o); newly redesignated (i) (6) is removed; and new paragraphs (g) and (h) are added, as follows:

§ 501.26 Delegation to the Director, Bureau of Economics and Agreement Analysis.

* * * * *

(g) Authority to grant or deny applications filed under § 572.505 of this chapter for waiver of the information form requirements of §§ 572.503 and 572.504 of this chapter.

By the Commission.

(h) Authority to grant or deny applications filed under § 572.709 of this chapter for waiver of the reporting and record retention requirements of §§ 572.701, 572.702, 572.703, 572.704, 572.705, 572.706, 572.707 and 572.708 of this chapter.

* * * * *

By the Commission.

Ronald D. Murphy,

Assistant Secretary.

[FR Doc. 96-5807 Filed 3-11-96; 8:45 am]

BILLING CODE 6730-01-M

FEDERAL COMMUNICATIONS COMMISSION

47 CFR PART 25

[CC Docket No. 92-166; FCC 96-54]

Mobile Satellite Service in the 1610-1626.5/2483.5-2500 MHz Frequency Band

AGENCY: Federal Communications Commission.

ACTION: Final rule: petition for reconsideration.

SUMMARY: The Commission has adopted, upon reconsideration, changes to the rules and policies establishing service and licensing rules for the Mobile Satellite Service in the 1610-1626.5/2483.5-2500 MHz Frequency Band. Specifically, we conclude that the "interim plan," designed to avoid interference between the Big LEO systems and the Russian Global Navigation Satellite System ("GLONASS"), is unnecessary at this time. We also clarify our views concerning position determination capabilities in Big LEO earth terminals, and modifications to feeder link proposals. In order to ensure that United States licensees do not engage in practices that are contrary to the goal of competitive markets world-wide, we also adopt a rule concerning exclusive arrangements for provision of Big LEO service. We also clarify our "two-tiered" processing scheme for financial qualifications. In addition, we make a number of minor editorial and clarifying changes to our technical rules.

EFFECTIVE DATE: April 11, 1996.

FOR FURTHER INFORMATION CONTACT: Karl Kensinger, International Bureau, Satellite and Radiocommunication Division, Satellite Policy Branch, (202) 418-0773.

SUPPLEMENTARY INFORMATION: This is a summary of the Commission's *Memorandum Opinion and Order* in CC Docket No. 92-166; FCC 96-54, adopted February 12, 1996 and released February 15, 1996. The complete text of this Memorandum Opinion and Order is

APPENDIX I2

Amendments to Subparts Cc and WWW appeared as a direct final notice in the Federal Register on June 16, 1998 (63 FR 32743) and can also be found on the internet at http://www.epa.gov/docs/fedrgstr/EPA-AIR/1998/June

transiting the ICW once the last tall ship in the parade clears the Savannah River and Fields Cut junction.

(3) From 2 p.m. until 5 p.m. EDT on July 3, 1998, and from 8 a.m. until 11 a.m. EDT on July 6, 1998, all waters bounded by the south bank of the Savannah River to the center of the Savannah River Channel, from the Talmadge Bridge to position 32-04.45, 081-04.45W. During these times no vessel shall be allowed to enter these safety zones unless authorized by the Captain of the Port.

(4) From 9 p.m. to 11 p.m. EDT on July 4, 1998, a 300 foot radius around a fireworks staging area in approximate position 32-05N, 081-05W. During this time no vessel shall be allowed to enter this safety zone unless authorized by the Captain of the Port.

(5) From 8 a.m. to 2 p.m. EDT on July 6, 1998, the center 300 feet of the Savannah River channel from the Talmadge Bridge to the entrance of Bloody Point Range. Vessels that cannot safely navigate outside of this safety zone and desire to depart the port of Savannah on July 6, 1998, would be required to begin the outbound transit in sufficient time to clear the Savannah Riverfront area prior to 8 a.m. Vessels that cannot safely navigate outside of this safety zone and desire to enter the port of Savannah on July 6, 1998, would be required to clear the Savannah Riverfront area prior to 8 a.m. If unable to clear the Savannah Riverfront area by 8 a.m., these vessels would be required to start the inbound transit after 2 p.m. The Captain of the Port will allow vessel traffic to resume outbound transits utilizing the entire navigational channel when the last tall ship in the parade clears longitude 080-51W. Vessels using the ICW will not be allowed to cross the Savannah River at the junction of the Fields Cut once the parade approaches within one (1) nautical mile of this area. Vessels will be allowed to resume transiting the ICW once the last tall ship in the parade clears the Savannah River and Fields Cut junction.

(6) From 10 a.m. to 2 p.m. EDT on July 6, 1998, an area bounded by 32-00.19N, 080-44.07W, 31-59.35N, 080-43.08W, 32-00.59N, 080-41.32W, and 32-01.43N, 080-42.28W. During this time no vessel shall be allowed to enter this safety zone unless authorized by the Captain of the Port.

Note: The regulations specified in paragraphs (a)(1) and (a)(6) apply only within the navigable waters of the United States. In the waters within the offshore staging area and pre-race staging area that are outside the navigable waters of the United States, the following nonobligatory guidelines apply.

(i) All unaffiliated Americas' Sail vessels should remain clear of the staging area and pre-race staging area and avoid interfering with any Americas' Sail participant or Coast Guard vessel. Interference with anchoring or race activities may constitute a safety hazard warranting cancellation or termination of all or part of the Americas' Sail activities by the Captain of the Port.

(ii) Any unauthorized entry into these zones by unaffiliated vessels constitutes a risk to the safety of marine traffic. Such entry will constitute a factor to be considered in determining whether a person has operated a vessel in a negligent manner in violation of 46 U.S.C. 2302.

(b) *Regulations.* In accordance with the general regulations in § 165.23 of this part, entry into these safety zones is subject to the following requirements:

(1) These safety zones are closed to all non-participating vessels, except as may be permitted by the Captain of the Port or a representative of the Captain of the Port.

(2) The "representative of the Captain of the Port" is any Coast Guard commissioned, warrant or petty officer who has been designated by the Captain of the Port, Savannah, GA, to act on his behalf. The representative of the Captain of the Port will be aboard either a Coast Guard or Coast Guard Auxiliary vessel.

(3) Non-participating vessel operators desiring to enter or operate within the safety zone shall contact the Captain of the Port or his representative to obtain permission to do so. Vessel operators given permission to enter or operate in the safety zone shall comply with all directions given them by the Captain of the Port or his representative.

(4) The Captain of the Port may be contacted by telephone via the Command Duty Officer at (912) 652-4353. Vessels assisting in the enforcement of the safety zone may be contacted on VHF-FM channel 16. Vessel operators may determine the restrictions in effect for the safety zone by coming alongside a Coast Guard vessel patrolling the perimeter of the safety zone.

(5) The Captain of the Port Savannah will issue a Marine Safety Information Broadcast Notice to Mariners to notify the maritime community of the safety zones and restrictions imposed.

(c) *Dates.* This section becomes effective at 9 a.m., Eastern Daylight Time (EDT) on July 2, 1998, and terminates at 2 p.m., EDT on July 6, 1998.

Dated June 3, 1998

R.E. Seebald,

Commander, U S Coast Guard, Captain of the Port, Savannah, Georgia

[FR Doc. 98-15965 Filed 6-15-98, 8:45 am]

BILLING CODE 4910-15-M

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 60

[AD-FRL-6106-8]

Standards of Performance for New Stationary Sources and Guidelines for Control of Existing Sources: Municipal Solid Waste Landfills

AGENCY: Environmental Protection Agency (EPA).

ACTION: Direct final rule.

SUMMARY: This action amends, corrects errors, and clarifies regulatory text of the "Standards of Performance for New Stationary Sources and Guidelines for Control of Existing Sources: Municipal Solid Waste Landfills," which was issued as a final rule and guideline on March 12, 1996.

EFFECTIVE DATE: This rule will become effective August 17, 1998 without further notice unless the Agency receives relevant adverse comment by July 16, 1998. Should the Agency receive such comments, it will publish a timely document withdrawing this rule.

ADDRESSES: Comments should be submitted (in duplicate if possible) to: Air and Radiation Docket and Information Center (MC-6102), Attn: Docket No. A-88-09/Category V-D, U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460. The EPA request that a separate copy also be sent to the contact person listed below. Refer to **SUPPLEMENTARY INFORMATION** for information regarding electronic submittal of comments.

FOR FURTHER INFORMATION CONTACT: For information concerning this notice and analyses performed in developing this rule, contact Ms. Michele Laur, Waste and Chemical Processes Group, Emission Standards Division (MD-13), U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711, telephone number (919) 541-5256. For implementation issues, contact Mary Ann Warner, Program Review Group, Information Transfer and Program Integration Division (MD-12), U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711, telephone number (919) 541-1192. For information on the Landfill

Model, contact Susan Thorneloe through the internet at: thorneloe.susan@epamail.epa.gov. For information concerning applicability and rule determinations, contact the appropriate regional representative:

Region I

Greg Roscoe, Air Programs Compliance Branch Chief, U.S. EPA/ASO, Region I, JFK Federal Building, Boston, MA 02203, (617) 565-3221

Region II

Christine DeRosa, U.S. EPA, Region II, 290 Broadway, 25th Floor, New York, NY 10007-1866, (212) 637-4022

Region III

James Topsale, U.S. EPA/3AP22, Region III, 841 Chestnut Building, Philadelphia, PA 10107, (215) 566-2190

Region IV

R. Douglas Neeley, Chief, Air and Radiation Technology Branch, U.S. EPA, Region IV, 61 Forsyth St., SW., Atlanta, GA 30303, (404) 562-9105

Region V

George T. Czerniak, Jr., Air Enforcement Branch Chief, U.S. EPA/5AE-26, Region V, 77 West Jackson Street, Chicago, IL 60604, (312) 353-2088

Region VI

John R. Hepola, Air Enforcement Branch Chief, U.S. EPA, Region VI, 1445 Ross Avenue, Suite 1200, Dallas, TX 75202-2733, (214) 655-7220

Region VII

Ward Burns, U.S. EPA/RME, Region VII, 726 Minnesota Avenue/ARTDAPCO, Kansas City, KS 66101-2728, (913) 551-7960

Region VIII

Vicki Stamper, U.S. EPA, Region VIII, 999 18th Street, Suite 500, Denver, CO 80202-2466, (303) 312-6445

Region IX

Patricia Bowlin, U.S. EPA/RM HAN/17211, Region IX, 75 Hawthorne Street/AIR-4, San Francisco, CA, (415) 744-1188

Region X

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SUPPLEMENTARY INFORMATION: A companion proposal to this final rule is being published in the proposed rules section of today's **Federal Register** and is identical to this direct final rule. Any comments on this direct final rule should address the companion proposal. The proposal provides information on addresses for submittal of comments. If relevant adverse comments are timely received, such comments will be addressed in a subsequent final rule based on the proposed rule. A document informing the public that the direct final rule did not take effect will be published. If no relevant adverse comments are timely filed on any provision of this direct final rule, then the entire direct final rule will become effective 60 days from today's **Federal Register** document and no further action will be taken on the companion proposal published today.

Background

On March 12, 1996 (60 FR 9918), the U.S. Environmental Protection Agency (EPA) promulgated in the **Federal Register** standards of performance for new sources (NSPS) for municipal solid waste landfills and emission guidelines for existing municipal solid waste landfills. These regulations and guidelines were promulgated as subparts WWW and Cc of 40 CFR part 60.

This document revises the wording of the applicability sections of subparts WWW and Cc and related definitions to clarify the intent regarding which landfills are subject to subpart WWW versus subpart Cc. This notice also corrects typographical and cross referencing errors. A few editorial modifications are also being made to clarify the intent of certain provisions and correct inconsistencies between different sections of subpart WWW. These changes do not significantly modify the requirements of the regulation.

I. Description of Changes

A. Definitions

The NSPS applies to landfills that commence construction, modification, or reconstruction on or after May 30, 1991. A definition of "modification" is being added. The definition is specific to landfills but is consistent with the intent of section 60.14 of the NSPS General Provisions. Application of the NSPS General Provisions to landfills is problematic due to the fact that a landfill is not a typical production or manufacturing facility for which the General Provisions originally were written. The following discussion demonstrates the considerations made to apply the NSPS General Provisions to landfills. This limited definition of modification is uniquely appropriate for landfills, and EPA does not believe at this time that such a rationale could be extended outside the landfill context.

As stated in 40 CFR 60.14(a), modifications are physical or operational changes to an existing facility that result in an increase in the emissions of any pollutant to which a standard applies. However, with respect to landfills, the concept of a physical or operational change leading to an increase in emissions is of limited application, since unlike more traditional sources of air pollution, increased emissions at landfills are based on the amount and character of waste placed in the landfill, rather than through physical or operational changes to equipment or production methods. Equipment at a landfill is essentially the landfill itself and while production can be roughly equated to the amount of waste placed in the landfill, total "production" for the entire life of the facility is controlled through the amount of design capacity specified in the permit. Although the amount and character of waste present at any given time may vary within the design capacity constraints set forth in the permit, emissions over the total life of the facility depend on the amount of waste a landfill can accept pursuant to its permitted design capacity. Accordingly, for landfills, it makes sense to consider only those physical or operational changes that increase the size of the landfill beyond its permitted capacity as modifications subjecting an existing facility to the NSPS. Therefore, if the design capacity of a landfill increases, a change leading to an increase in emissions is assumed to have occurred. For purposes of this NSPS, a landfill is considered modified and subject to the NSPS if its design capacity has been increased after May 30, 1991.

Operational changes at landfills, such as increasing the moisture content of the waste, increasing the physical compaction on the surface, changing the cover material or thickness of daily cover, and changing bailing or compaction practices, can typically be accomplished without a capital expenditure. Consequently, the landfill definition of modification does not include such operational changes. Existing landfills that make an operational change but do not increase the horizontal or vertical dimensions of the landfill continue to be subject to the emission guidelines rather than the NSPS. Therefore, for landfills, the only change which would constitute a modification is an increase in design capacity caused by an increase in the permitted horizontal or vertical dimensions of the landfill.

Reconstructions are unlikely for landfills. As specified in the NSPS General Provisions, reconstructions are "the replacement of components of an existing facility [landfill] to such an extent that: the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost of a comparable entirely new facility [landfill] * * *." The Agency knows of no situation where this would occur at a landfill.

The definition of "design capacity" is being amended to clarify that the design capacity is determined by the *most recent* permit issued by the State, local, or Tribal agency responsible for regulating the landfill plus any in-place waste not accounted for in that permit. This clarification addresses cases where a landfill may have multiple permits. It makes sense to use the most recent permitted design capacity to determine whether a landfill exceeds the design capacity exemption level. The words "construction or operating" permit have also been deleted and substituted with the word "permit." The use of the term "operating permit" could be misinterpreted to mean a title V permit. The permit intended was the State, local, or Tribal agency permit that establishes the design capacity.

The definition of design capacity is also being clarified to state that a permit may express design capacity on a volumetric or a mass basis. The revised definition also states that the owner or operator may choose to convert the design capacity from volume to mass or from mass to volume, using a site-specific density, in order to demonstrate that the design capacity is less than 2.5 million Mg or 2.5 million m^3. If the density changes, the design capacity changes. Therefore, an owner or operator who converts from volume to mass or mass to volume must annually calculate the site-specific density. These revisions to the definition are clarifications that do not change the intent of the NSPS and emission guidelines as promulgated on March 12, 1996.

Under the NSPS and emission guidelines, design capacity is used to determine whether or not a landfill is below the design capacity cutoff. If the design capacity in the permit is below either 2.5 million megagrams (Mg) or 2.5 million cubic meters (m^3), the landfill is exempt (except for design capacity reporting requirements). A landfill with a volumetric permit may choose to calculate design capacity on a mass basis (or vice versa) based on a site-specific density. The initial design capacity report must provide supporting documentation of this calculation. If such a conversion is made, records must also be kept of the annual recalculation of the site-specific density and design capacity with supporting documentation.

For example, a landfill may have a permitted design capacity greater than 2.5 million m^3 by volume; but the landfill may have documented calculations showing that, based on the actual waste density, the design capacity is less than 2.5 million Mg by mass. Because the design capacity is less than 2.5 million Mg, the landfill is below the design capacity cutoff. If such a landfill changes its compaction practices such that the density of the waste placed in the landfill increases, the calculated design capacity could become greater than 2.5 million Mg, and the landfill would then need to submit an amended design capacity report. If the revised design capacity is over 2.5 million m^3 and 2.5 million Mg, the landfill must estimate emissions and must install controls if emissions are greater than or equal to 50 Mg/yr.

If an existing landfill makes an operational change (such as a change in compaction practices), this is not a "modification" (see the previous discussion on the definition of "modification"). Such a landfill will continue to be subject to the emission guidelines rather than becoming subject to the NSPS. The emission guidelines require the landfill to report any increase in design capacity that results in a capacity equal to or greater than 2.5 million Mg and 2.5 million m^3. The control requirements of the emission guidelines will apply if the design capacity increases to over 2.5 million Mg and 2.5 million m^3 due to an operational change and not due to modification as defined by this rule.

The definition of "closed landfill" and wording in section 60.752(b) are being revised to delete references to section 258.60. This reference is not appropriate for all landfills because some landfills closed prior to the October 1993 effective date of part 258 and are not subject to part 258. Section 60.752(b)(2)(v)(A) is being revised for clarification to refer to the definition of "closed landfill" in section 60.751 instead of the requirements of section 258.60.

The definition of "interior well" is being revised to clarify that an interior well is located inside the perimeter of the landfilled waste.

The definition of "radii of influence" is being added parenthetically in section 60.759(a)(3)(ii) for clarification. This definition makes it clear that the radii of influence is the distance from the well center to a point in the landfill where the pressure gradient applied by the blower or compressor approaches zero.

B. Designation of Affected Facility

Section 60.750(a) of subpart WWW is being revised slightly to clarify which landfills are subject to the NSPS. The promulgated rule stated that "the provisions of this subpart apply to each municipal solid waste landfill that commenced construction, reconstruction, or modification or began accepting waste on or after May 30, 1991. The words "or began accepting waste" have been deleted. This change makes the applicability consistent with both the definition of "new source" in section 111 of the Clean Air Act (CAA) and the applicability of the emission guidelines in section 60.32c of subpart Cc. As stated in section 60.32c(a), the emission guidelines apply to landfills that commenced construction, modification, or reconstruction before May 30, 1991. A landfill that commenced construction before May 30, 1991, but began accepting waste after May 1991 should be subject to the emission guidelines rather than the NSPS. The change being made accomplishes this objective and is consistent with the CAA. The definitions of "commenced" and "construction" are contained in section 60.2 of the NSPS General Provisions (subpart A). A definition for "modification" is being added to subpart WWW, and "reconstruction" is described in section 60.15 of the NSPS General Provisions.

Section 60.750(b) of subpart WWW is being revised to clarify that authority for test methods are retained by the Administrator and shall *not* be transferred to the State. This is consistent with EPA's historical position on test methods.

Under applicability, we are also clarifying that activities conducted as part of CERCLA remedial actions or RCRA corrective actions are not considered construction, modification, or reconstruction and would not make a landfill subject to the NSPS. This is consistent with the provisions that changes made to an existing landfill solely to comply with the emission guidelines do not make the landfill subject to the NSPS. It is also consistent with the exemption of facilities subject to a CERCLA remedial action from permitting requirements. This provision is being added to section 60.750 of subpart WWW as paragraph (c).

Regarding applicability and the design capacity exemption, the wording "or" in several places in section 60.752 has been changed to "and" to clarify that if a landfill design capacity is less

than either 2.5 million Mg *or* 2.5 million m^3, the landfill is exempt from all provisions except the design capacity report; whereas if the capacity is equal to or greater than 2.5 million Mg *and* 2.5 million m^3, the additional requirements of the rule apply. As previously discussed under the definition of design capacity, a landfill may calculate design capacity on either a mass or volume basis to determine if it qualifies for the design capacity exemption.

C. Compliance Dates

The compliance time in section 60.752(b)(2)(ii) is being revised to make it clear that landfills have 30 months to install a collection and control system once the landfill becomes affected (i.e., the annual report shows NMOC emissions equal to or greater than 50 Mg/yr). Section 60.752(b)(2)(ii) stated that a landfill has 18 months to install a collection and control system after submitting a design plan to the Administrator. Section 60.752(b)(2)(i) requires landfills to submit a design plan within 1 year of the annual report showing NMOC emissions equal to or greater than 50 Mg/yr. Therefore, the previous language in the rule would require landfills that submitted a design plan earlier than 1 year after becoming affected to install a collection and control system sooner than landfills that waited the full 1 year to submit the design plan. The intent was to allow landfills 30 months after the first report showing NMOC emissions equal to or greater than 50 Mg/yr to install controls.

Similarly, in the emission guidelines, section 60.36c(a) is revised to specify that installation of collection and control systems shall be accomplished within 30 months of the initial report showing NMOC emissions equal or exceed 50 Mg/yr rather than within 30 months of the effective date of the State rule. This is consistent with the timing in the NSPS, which allows 90 days to submit an initial report, and 30 months to install controls if the report shows that emissions equal or exceed 50 Mg/yr.

Section 60.755(b) is being revised to clarify that an affected landfill must install each well no later than 60 days after the date on which the initial solid waste has been in place (1) for five years or more if the area is active or (2) two years or more if the area is closed or at final grade. The only change is to specify "no later than 60 days after" instead of "within 60 days."

D. Clarification of Title V Permitting Requirements

The paragraphs on part 70 permitting requirements are being revised to refer to both part 70 and 71. In States with approved part 70 operating permit programs, sources will apply for part 70 permits; in States without approved part 70 permit programs, EPA will implement the federal operating permits program under part 71.

Section 502(a) of the Act requires title V operating permits for a number of sources, including, but not limited to, major sources and sources (including nonmajor sources) which are subject to standards or regulations under section 111 or 112. Section 502(a) also states that the Administrator may exempt source categories (in whole or in part) from permitting requirements if the Administrator determines that compliance with such requirements is impracticable, infeasible, or unnecessarily burdensome on such categories, but not major sources.

At promulgation of this NSPS and EG (61 FR 9905, March 12, 1996), landfills with a design capacity less than 2.5 million Mg in mass or 2.5 million m^3 in volume were exempted from part 70 operating permit requirements based on the above provisions. Although these landfills are required to submit a design capacity report under this NSPS and EG, no control is required for landfills of this size. As a result, EPA believes that it would be unnecessarily burdensome for landfills, which are not major sources and which have design capacities less than 2.5 million Mg or 2.5 million m^3, to apply for a title V permit when the NSPS or EG does not establish any emission limits or control requirements for such landfills.

If a MSW landfill is subject to title V permitting (40 CFR part 70 or part 71) as a result of this NSPS or EG standard (i.e., a source which meets or exceeds the design capacity of 2.5 million Mg and 2.5 million m^3) it is not subject to the requirement to apply for a title V permit until 90 days after the earlier of the following dates: (1) the effective date of this NSPS (March 12, 1996); (2) the effective date of EPA's approval of a state's 111(d) plan; or (3) the date of commenced construction, modification, or reconstruction for landfills that commence construction, modification, or reconstruction on or after March 12, 1996, even if the design capacity report is submitted prior to the relevant deadline. Sentences have been added to section 60.752 and section 60.32c(c) to clarify the date the landfill becomes subject to title V. These dates for triggering title V applicability are consistent with the dates that NSPS sources are required to file design capacity reports. To maintain consistency between NSPS sources and EG sources, EG sources will not become subject to the requirement to apply for a title V permit until 90 days after the effective date of EPA's approval of a state's 111(d) plan.

The permit provisions originally included as sentences within paragraphs (a) and (b) of section 60.752 have been moved to separate paragraphs (c) and (d) so that the detailed permit provisions are in one location. The wording has also been revised to clarify that landfills smaller than 2.5 million Mg or 2.5 million m^3 do not require a part 70 or 71 operating permit unless they are subject to part 70 or 71 for some other reason. A landfill of this size *could* be a major source, and, if so, would need to apply for a permit. This situation was discussed in the preamble to the promulgated rule (61 FR 9912, March 12, 1996). Also, a landfill of this size could be subject to title V for some other reason, e.g., subject to another NSPS or NESHAP.

Sources subject to the title V permitting program under parts 70 or 71 are required to file applications within 12 months after becoming subject to the program. Landfills which are subject to the title V permitting program as a result of being subject to this NSPS or EG are required to file title V applications within 12 months following the deadline to submit a design capacity report (which indicates that the landfill in question is equal to, or greater than, 2.5 million Mg and 2.5 million m^3). In that the designation of size in the report triggers title V applicability, EPA believes that it is appropriate that the deadline for filing this report initiates the 12 month time frame for submitting a title V application. As provided in section 503(c) of the Act, permitting authorities may establish earlier deadlines, prior to the 12 month deadline, for submitting title V applications. If more than one requirement causes a source to be subject to title V permitting, the time frame for filing a title V application will be triggered by the requirement which first caused the source to be subject to title V.

Section 60.752(d) (formerly the last sentence in section 60.752(b)) is being revised. This paragraph stated that after a landfill is closed and either never required a control system or has met the criteria for control system removal, a title V permit is no longer needed. The phrase "if the landfill is not otherwise subject to the requirements of either part 70 or 71" has been added. As previously discussed, if a landfill is a major source or is subject to title V for some other reason (e.g., subject to another NSPS or NESHAP), it will still require a permit. Other format changes to this paragraph

are to improve clarity and do not change the intent.

Subpart Cc is being amended by adding paragraphs (c) and (d) to section 60.32c. These paragraphs, which cover when existing MSW landfills require part 70 or 71 operating permits, were excluded from the promulgated emission guidelines through an oversight. Part 70 permit provisions were included in the NSPS, but the Emission Guidelines inadvertently did not reference this section of the NSPS. The inclusion of these paragraphs makes subpart Cc consistent with subpart WWW with respect to part 70 or 71 operating permits. Specifically, paragraph (c) clarifies that an existing landfill smaller than 2.5 million Mg or 2.5 million m^3 does not require a part 70 or 71 operating permit unless it is subject to part 70 or 71 for some other reason. Paragraph (c) also clarifies that an existing landfill equal to or greater than 2.5 million Mg and 2.5 million m^3 is subject to part 70 or 71 permitting requirements whether it is a major source or not. In addition, paragraph (d) clarifies that closed landfills that are only required to have title V permits due to 40 CFR part 60, subparts WWW or Cc and are not required to have a control system or meet the conditions for control system removal are not required to have part 70 or 71 operating permits, if they are not otherwise subject to title V permitting requirements. As with 40 CFR part 60, subpart WWW, under 40 CFR part 60, subpart Cc, the deadline for submitting a design capacity report initiates the time frame for submitting a title V application. Permitting authorities may, however, establish earlier dates by which applications are required from these title V sources.

E. Equations

Section 60.754(a)(1) is being revised to clarify that *both* the equation in section 60.754(a)(1)(i) and the equation in section 60.754(a)(1)(ii) may be used when the actual year-to-year solid waste acceptance rate is known for only part of the life of the landfill. This is the technically correct way to calculate emissions and was the intent of the rule.

Section 60.754(a)(1) is being amended by the addition of the methane generation rate constant (k) for geographical areas with low precipitation. A k value of 0.02 per year is provided for the tier 1 calculation for landfills located in geographical areas with a thirty year annual average precipitation of less than 25 inches, as measured at the nearest representative official meteorologic site. Landfills located in geographical areas with low precipitation experience slower decomposition of their waste than landfills located in geographical areas with moderate to high rainfall. Consequently, the gas production rate at landfills located in drier areas is reduced. Rather than burden these landfills with pursuing tier 3 Method 2E testing and analysis for a site-specific k value, it is reasonable to allow an alternative default k value. In reviewing the information used to estimate the impacts of the final rule (Docket A-88-09, Item IV-M-4), a k value of 0.02 per year for landfills that meet this description is a reasonably conservative value consistent with the intent of the tier 1 analysis.

Sections 60.754(a)(1)(i) and (ii) are also being revised to clarify that only documentation of the nature and amount of nondegradable waste needs to be maintained when subtracting the mass of nondegradable waste from the total mass of waste when calculating the NMOC emission rate. The previous language specified that the documentation provisions of section 60.758(d)(2) were to be followed; however, these provisions are related to segregated areas within the landfill excluded from collection pursuant to section 60.759(a)(3)(i) or (ii) because asbestos or other nondegradable wastes were disposed in those areas or because the area is nonproductive. For the purposes of estimating emissions, only documentation of the nature and amount of nondegradable waste needs to be maintained to justify the subtraction of the mass of nondegradable waste.

F. Test Methods and Procedures

Section 60.754(a)(4)(ii) is revised to clarify that the site-specific methane generation rate constant is calculated only once and that this value is to be used in all subsequent annual NMOC emission rate calculations.

Section 60.752(b)(2)(iii)(B) is being revised to clarify that the initial performance test required under section 60.8 must be completed no later than 180 days after the initial startup of the approved control system. The promulgated regulation already required under section 60.757(f) that the initial performance test report must be submitted within 180 days of start-up of the collection system. This is being reiterated in section 60.752(b)(2)(iii)(B) for clarification.

Section 60.759(a)(3)(ii), which required the use of the values of k and CNMOC determined by field testing, if performed to determine the N_{MOC} emission rate or radii of influence, is being revised to also refer to alternative means for determining k or C_{NMOC} allowed by section 60.754(a)(5). The reference to using L_o values from testing is deleted because it was incorrect. The tier procedures do not include testing for L_o. As previously mentioned, the definition of radii of influence is being added parenthetically for clarity.

G. Prevention of Significant Deterioration Determination

Section 60.754(c) is being revised to clarify that the intent of this provision was to establish the *method* by which prevention of significant deterioration determinations should be made, not to require a PSD determination. The original wording could have been misinterpreted to require PSD-related actions. PSD is a separate permit program that applies to new and modified sources. The PSD regulations, not this NSPS, establish whether a PSD determination is needed. New sources may be subject to PSD review.

In a July 1, 1994 guidance memorandum issued by the EPA (available on the Technology Transfer Network; see "Pollution Control Projects (PCP) and New Source Review (NSR) Applicability" from John S. Seitz, Director, OAQPS to EPA Regional Air Division Directors), the EPA provided guidance for permitting authorities on the approvability of PCP exclusions for source categories other than electric utilities. In the guidance, the EPA indicated that add-on controls and fuel switches to less polluting fuels meet the definition of a PCP and, provided certain safeguards are met, may qualify for an exclusion from major NSR. To be eligible to be excluded from otherwise applicable major NSR requirements, a PCP must, on balance, be "environmentally beneficial," and the permitting authority must ensure that the project will not cause or contribute to a violation of a national ambient air quality standard (NAAQS) or PSD increment, or adversely affect visibility or other air quality related value (AQRV).

A potential exclusion available under PSD is discussed here for informational purposes. In the July 1, 1994 guidance memorandum, the EPA specifically identified the installation of controls pursuant to the NSPS and EG rules as an example of add-on controls that could be considered a PCP and an appropriate candidate for a case-by-case exclusion from major NSR. The EPA considers installation of controls pursuant to the NSPS and EG rules for the control of landfill gases a PCP because the controls are installed to comply with the NSPS and will reduce emissions of NMOC. The EPA also

considers the reduction of these pollutants to represent an environmental benefit. However, EPA recognizes that the incidental formation of nitrogen oxides and carbon monoxide due to the destruction of landfill gas will occur. Consistent with the 1994 guidance, the permitting authority should confirm that in each case that the resultant increase in nitrogen oxides and carbon monoxide would not cause or contribute to a violation of the NAAQS and PSD increment or adversely affect an AQRV.

Finally, the 1994 guidance did not void or create an exclusion from any applicable minor source preconstruction review requirements in an approved State Implementation Plan (SIP). Any minor NSR permitting requirements in a SIP would continue to apply, regardless of any exclusion from major NSR that might be approved for a source under the PCP exclusion policy.

H. Monitoring

Section 60.756(a) is being revised to clarify that a temperature measuring device does not need to be permanently installed at each wellhead. It is common for wellheads to have an access port for temperature measurements so that a temperature measuring device can be shared across wellheads for the monthly temperature monitoring requirement. As long as the temperature is monitored monthly, the intent of the regulation is met.

Section 60.756(b)(2) is also being revised to clarify that the device for monitoring gas flow need only record the flow or bypass, not necessarily measure the rate at which gas is flowing to the control device.

I. Compliance Provisions

Section 60.755(a)(3) is being revised to allow an alternative timeline to be proposed for correcting an exceedance in collection header pressure at each well. Consistent with section 60.755(c)(4)(v), a sentence is being added to sections 60.755(a)(3) and 60.755(a)(5) to allow an alternate timeline to be proposed to the Administrator for correcting an exceedance. This revision makes the sections consistent. Depending on the remedy selected to correct the problem, a different timeline may be needed, but any timeline extending more than 120 days must be approved by the regulatory agency.

Section 60.755(c)(1) is being revised slightly to indicate that surface monitoring of methane shall be performed along the entire perimeter of the collection area and along a pattern that traverses the landfill at 30-meter intervals. This change makes the wording consistent with other sections of the rule (e.g., section 60.753(d)).

J. Recordkeeping and Reporting

Sections 60.757(a)(1) and (b)(1)(i) are being revised to clarify that subject landfills that commenced construction, modification, or reconstruction after May 30, 1991 (date of proposal) but before the date of promulgation had until June 10, 1996 (90 days from the promulgation date) to submit an initial design capacity report and an initial NMOC emission rate report to the Administrator. The previous language was not clear as to when landfills that commenced construction, modification, or reconstruction between proposal and promulgation would be required to submit an initial design capacity report or NMOC emission rate report. However, it is obvious that the reports could not be required prior to promulgation of the regulation. Therefore, instead of submitting the reports 90 days after commencing construction, landfills that were constructed before promulgation have 90 days after the promulgation date to submit the reports.

Also paragraphs (a)(1)(i) and (ii) in the promulgated rule were somewhat repetitive and contradictory. Paragraph (a)(1)(iii) reflected an unrealistic scenario in that this date would always occur later than the date in paragraphs (a)(1)(i) and (ii). For this reason, the previous paragraph (a)(1)(iii) was unnecessary and confusing. Therefore, that paragraph has been deleted, and paragraphs (a)(1)(i) and (ii) have been revised to state that the report is due on June 10, 1996 or within 90 days after the date of commencement of construction, modification, or reconstruction, depending on when the construction, modification, or reconstruction commenced.

The wording of section 60.757(a)(2)(ii) is being revised to require calculation of design capacity submitted as part of the design capacity report to include "relevant parameters" rather than the specific list of parameters in the promulgated rule. Some of the previously listed parameters (e.g., compaction practices) would not apply to landfills that calculate design capacity on a volumetric rather than mass basis. Other parameters that were not listed will be needed to perform the calculation in some cases.

The wording of section 60.757(a)(3), which requires amended design capacity reports, is being revised for clarity and consistency with the definitions of modification and design capacity discussed under I.A. It also clarifies that a report is required only if capacity increases above 2.5 million Mg and 2.5 million m^3. This was the original intent, but the original wording was confusing.

Several paragraphs in section 60.758 are being revised to clarify that the recordkeeping requirements in paragraphs (b), (c), (d), and (e) do not apply if an alternative to the operational standards, test methods, procedures, compliance measures, monitoring, or reporting provisions has been submitted with the design plan and approved by the Administrator.

II. Cross-Referencing and Typographical Errors

Errors in cross-referencing one section to another within subpart WWW are being corrected. Typographical errors are also being corrected.

III. Corrections to Promulgation Preamble

Tables 3 and 5 in the promulgation preamble contained typographical errors. The units for the small size cutoff (column 1) are stated to be in millions of megagrams (millions Mg); however, the values presented are actually in megagrams. These tables are corrected and provided below for clarification.

TABLE 3.—ALTERNATIVE DESIGN CAPACITY EXEMPTION LEVEL OPTIONS FOR THE EMISSION GUIDELINES [a b]

Small size cutoff (mg)	Number landfills affected	Annual [c] NMOC emission reduction (Mg/yr)	Annual [d] methane emission reduction (Mg/yr)	Annual cost (million $/yr)	NMOC average cost eff. ($/Mg)	NMOC incremental cost eff. ($/Mg)
Baseline [e]	...	...	...	...	...	...
3,000,000	273	73,356	3,220,000	84	1,145	1,145
2,500,000	312	77,600	3,370,000	89	1,147	1,178
1,000,000	572	97,600	3,990,000	119	1,219	1,500

TABLE 3.—ALTERNATIVE DESIGN CAPACITY EXEMPTION LEVEL OPTIONS FOR THE EMISSION GUIDELINES [a] [b]—Continued

Small size cutoff (mg)	Number landfills affected	Annual [c] NMOC emission reduction (Mg/yr)	Annual [d] methane emission reduction (Mg/yr)	Annual cost (million $/yr)	NMOC average cost eff. ($/Mg)	NMOC incremental cost eff. ($/Mg)
No cutoff [f]	7,299	142,000	8,270,000	719	5,063	13,514

[a] Emission rate cutoff level of 50 Mg NMOC/yr.
[b] All values are fifth year annualized.
[c] NMOC emission reductions are from a baseline of 145,000 Mg NMOC/yr.
[d] Methane emission reductions are from a baseline of 8,400,000 Mg methane/yr.
[e] In the absence of an emission guidelines.
[f] No emission rate cutoff and no design capacity exemption level.

TABLE 5.—ALTERNATIVE DESIGN CAPACITY EXEMPTION LEVEL OPTIONS FOR THE NEW SOURCE PERFORMANCE STANDARDS [a] [b]

Small size cutoff (mg)	Number landfills affected	Annual [c] NMOC emission reduction (Mg/yr)	Annual [d] methane emission reduction (Mg/yr)	Annual [e] cost (million $/yr)	MNOC average cost eff. ($/Mg)	MNOC [f] incremental cost eff. ($/Mg)
Baseline [g]	.....	.....	.....	.....	.....	.....
3,000,000	41	4,900	193,000	4	816	NA
2,500,000	43	4,900	193,000	4	816	NA
1,000,000	89	4,900	193,000	4	816	NA
No cutoff [h]	872	13,115	881,000	81	6,176	NA

[a] Emission rate cutoff level of 50 Mg NMOC/yr.
[b] All values are fifth year annualized.
[c] NMOC emission reductions are from a baseline of 13,400 Mg NMOC/yr.
[d] Methane emission reductions are from a baseline of 899,000 Mg methane/yr.
[e] Due to rounding off to the nearest million dollar, cost values do not appear to change for each option. However, actual costs are slightly less for a less stringent option.
[f] Because the annual cost does not change enough to show a different cost from one option to the next, incremental cost effectiveness values are not applicable.
[g] In the absence of a standard.
[h] No emission rate cutoff and no design capacity exemption level.

IV. Judicial Review

Under section 307(b)(1) of the CAA, judicial review of the actions taken by this final rule is available only on the filing of a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit within 60 days of today's publication of this action. Under section 307(b)(2) of the CAA, the requirements that are subject to today's document may not be challenged later in civil or criminal proceedings brought by EPA to enforce these requirements.

V. Administrative

A. Paperwork Reduction Act

The information collection requirements of the previously promulgated NSPS were submitted to and approved by the Office of Management and Budget (OMB). A copy of this Information Collection Request (ICR) document (OMB control number 1557.03) may be obtained from Sandy Farmer, OPPE Regulatory Information Division; U.S. Environmental Protection Agency (2137); 401 M Street, SW; Washington, DC 20460 or by calling (202) 260–2740.

Today's changes to the NSPS should have no impact on the information collection burden estimates made previously. The changes consist of new definitions and clarifications of requirements; not additional requirements. Consequently, the ICR has not been revised.

B. Executive Order 12866 Review

Under Executive Order 12866 (58 FR 51735, October 4, 1993), the Agency must determine whether a regulatory action is "significant" and therefore subject to Office of Management and Budget (OMB) review and the requirements of this Executive Order. The Order defines "significant regulatory action" as one that is likely to result in a rule that may:

(1) Have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities;

(2) Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;

(3) Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs, or the rights and obligation of recipients thereof; or

(4) Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

Pursuant to the terms of Executive Order 12866, it has been determined that this action is not "significant" because none of the listed criteria apply to this action. Consequently, this action was not submitted to OMB for review under Executive Order 12866.

C. Regulatory Flexibility

EPA has determined that it is not necessary to prepare a regulatory flexibility analysis in connection with this direct final rule. EPA has also determined that this direct final rule amendment will not have a significant economic impact on a substantial number of small entities. Today's action clarifies the applicability of control requirements in the Standards of Performance for New Stationary Sources and Guidelines for Control of Existing Sources: Municipal Solid Waste Landfills and does not include any

provisions that create a burden for any of the regulated entities.

The changes in today's action do not increase the stringency of the rule or add additional control requirements. Nor is the scope of the rule changed so as to bring any entities not previously subject to the rule within its scope or coverage. Today's action does not alter control, monitoring, recordkeeping, or reporting requirements of the promulgated rule.

D. Submission to Congress

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. This rule is not a "major rule" as defined by 5 U.S.C. 804(2).

E. Executive Order 12875 and Unfunded Mandates Reform Act

Under the executive order EPA must consult with representatives of affected State, local, and Tribal governments. Under the unfunded mandates reform act, EPA must prepare a statement to accompany any rule where the estimated costs to State, local, or Tribal governments, or to the private sector, will be $100 million or more per year. The EPA held consultations and prepared such a statement at the time of promulgation of subpart Cc and WWW (61 FR 9913, March 12, 1996). Today's changes consist of new definitions and clarifications and do not impose costs on government entities or the private sector. Consequently, a new unfunded mandates statement has not been prepared.

F. Children's Health Protection

This direct final rule is not subject to E.O. 13045, entitled "Protection of Children from Environmental Health Risks and Safety Risks" (62 FR 19885, April 23, 1997), because it does not involve decisions on environmental health risks or safety that may disproportionately affect children.

List of Subjects in 40 CFR Part 60

Environmental protection, Municipal solid waste landfills, Air pollution control.

Dated May 28, 1998

Carol M. Browner,

Administrator.

For the reasons set out in the preamble, title 40, chapter 1, part 60 of the Code of Federal Regulations is amended as follows:

PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

1. The authority citation for part 60 continued to read as follows:

Authority: 42 U.S.C. 7401, 7411, 7414, 7416, 7429, and 7601.

Subpart Cc—[Amended]

2. Amend § 60.32c by adding paragraphs (c) and (d) to read as follows:

§ 60.32c Designated facilities.

* * * * *

(c) For purposes of obtaining an operating permit under title V of the Act, the owner or operator of a MSW landfill subject to this subpart with a design capacity less than 2.5 million megagrams or 2.5 million cubic meters is not subject to the requirement to obtain an operating permit for the landfill under part 70 or 71 of this chapter, unless the landfill is otherwise subject to either part 70 or 71. For purposes of submitting a timely application for an operating permit under part 70 or 71, the owner or operator of a MSW landfill subject to this subpart with a design capacity greater than or equal to 2.5 million megagrams and 2.5 million cubic meters on the effective date of EPA approval of the State's program under section 111(d) of the Act, and not otherwise subject to either part 70 or 71, becomes subject to the requirements of §§ 70.5(a)(1)(i) or 71.5(a)(1)(i) of this chapter 90 days after the effective date of such 111(d) program approval, even if the design capacity report is submitted earlier.

(d) When a MSW landfill subject to this subpart is closed, the owner or operator is no longer subject to the requirement to maintain an operating permit under part 70 or 71 of this chapter for the landfill if the landfill is not otherwise subject to the requirements of either part 70 or 71 and if either of the following conditions are met.

(1) The landfill was never subject to the requirement for a control system under § 60.33c(c) of this subpart; or

(2) The owner or operator meets the conditions for control system removal specified in § 60.752(b)(2)(v) of subpart WWW.

3. Amend § 60.33c by removing in paragraph (a)(2) the phrase "2.5 million megagrams or 2 5 million cubic meters" and adding, in its place "2.5 million megagrams and 2.5 million cubic meters."

4. Amend § 60 36c by revising paragraph (a) to read as follows:

§ 60.36c Compliance times.

(a) Except as provided for under paragraph (b) of this section, planning, awarding of contracts, and installation of MSW landfill air emission collection and control equipment capable of meeting the emission guidelines established under § 60.33c shall be accomplished within 30 months after the date the initial NMOC emission rate report shows NMOC emissions equal or exceed 50 megagrams per year.

* * * * *

Subpart WWW

5. Amend § 60.750 as follows:

a. In paragraph (a), remove the words "or began accepting waste".

b. In paragraph (b), remove the word "None" and add, in its place "§ 60.754(a)(5)".

c. Add paragraph (c) to read as follows:

§ 60.750 Applicability, designation of affected facility, and delegation of authority.

* * * * *

(c) Activities required by or conducted pursuant to a CERCLA, RCRA, or State remedial action are not considered construction, reconstruction, or modification for purposes of this subpart.

6. Amend § 60.751 as follows:

a. Remove the last sentence in the definition of "closed landfill."

b. Revise the definitions of "controlled landfill," "design capacity," and "interior well" and add a definition of "modification" to read as follows:

§ 60.751 Definitions.

* * * * *

Controlled landfill means any landfill at which collection and control systems are required under this subpart as a result of the nonmethane organic compounds emission rate. The landfill is considered controlled at the time a collection and control system design plan is submitted in compliance with § 60.752(b)(2)(i).

Design capacity means the maximum amount of solid waste a landfill can accept, as indicated in terms of volume or mass in the most recent permit issued by the State, local, or Tribal agency responsible for regulating the landfill, plus any in-place waste not accounted for in the most recent permit. If the owner or operator chooses to convert the design capacity from volume to

mass or from mass to volume to demonstrate its design capacity is less than 2.5 million megagrams or 2.5 million cubic meters, the calculation must include a site specific density, which must be recalculated annually.

* * * * *

Interior well means any well or similar collection component located inside the perimeter of the landfill waste. A perimeter well located outside the landfilled waste is not an interior well.

* * * * *

Modification means an increase in the permitted volume design capacity of the landfill by either horizontal or vertical expansion based on its permitted design capacity as of May 30, 1991.

7. Amend § 60.752 by revising paragraph (a), the introductory text of paragraph (b), paragraphs (b)(2)(ii), (b)(2)(iii)(B), and (b)(2)(v)(A), and adding paragraphs (c) and (d) to read as follows:

§ 60.752 Standards for air emissions from municipal solid waste landfills.

(a) Each owner or operator of an MSW landfill having a design capacity less than 2.5 million megagrams by mass or 2.5 million cubic meters by volume shall submit an initial design capacity report to the Administrator as provided in § 60.757(a). The landfill may calculate design capacity in either megagrams or cubic meters for comparison with the exemption values. Any density conversions shall be documented and submitted with the report. Submittal of the initial design capacity report shall fulfill the requirements of this subpart except as provided for in paragraphs (a)(1) and (a)(2) of this section.

(1) The owner or operator shall submit to the Administrator an amended design capacity report, as provided for in § 60.757(a)(3).

(2) When an increase in the maximum design capacity of a landfill exempted from the provisions of § 60.752(b) through § 60.759 of this subpart on the basis of the design capacity exemption in paragraph (a) of this section results in a revised maximum design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters, the owner or operator shall comply with the provision of paragraph (b) of this section.

(b) Each owner or operator of an MSW landfill having a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters, shall either comply with paragraph (b)(2) of this section or calculate an NMOC emission rate for the landfill using the procedures specified in § 60.754. The NMOC emission rate shall be recalculated annually, except as provided in § 60.757(b)(1)(ii) of this subpart. The owner or operator of an MSW landfill subject to this subpart with a design capacity greater than or equal to 2.5 million megagrams and 2.5 million cubic meters is subject to part 70 or 71 permitting requirements.

(1) * * *

(2) * * *

(ii) Install a collection and control system that captures the gas generated within the landfill as required by paragraphs (b)(2)(ii)(A) or (B) and (b)(2)(iii) of this section within 30 months after the first annual report in which the emission rate equals or exceeds 50 megagrams per year, unless Tier 2 or Tier 3 sampling demonstrates that the emission rate is less than 50 megagrams per year, as specified in § 60.757(c)(1) or (2).

* * * * *

(iii) * * *

(A) * * *

(B) A control system designed and operated to reduce NMOC by 98 weight-percent, or, when an enclosed combustion device is used for control, to either reduce NMOC by 98 weight percent or reduce the outlet NMOC concentration to less than 20 parts per million by volume, dry basis as hexane at 3 percent oxygen. The reduction efficiency or parts per million by volume shall be established by an initial performance test to be completed no later than 180 days after the initial startup of the approved control system using the test methods specified in § 60.754(d).

* * * * *

(v) * * *

(A) The landfill shall be a closed landfill as defined in § 60.751 of this subpart. A closure report shall be submitted to the Administrator as provided in § 60.757(d);

* * * * *

(c) For purposes of obtaining an operating permit under title V of the Act, the owner or operator of a MSW landfill subject to this subpart with a design capacity less than 2.5 million megagrams or 2.5 million cubic meters is not subject to the requirement to obtain an operating permit for the landfill under part 70 or 71 of this chapter, unless the landfill is otherwise subject to either part 70 or 71. For purposes of submitting a timely application for an operating permit under part 70 or 71, the owner or operator of a MSW landfill subject to this subpart with a design capacity greater than or equal to 2.5 million megagrams and 2.5 million cubic meters, and not otherwise subject to either part 70 or 71, becomes subject to the requirements of §§ 70.5(a)(1)(i) or 71.5(a)(1)(i) of this chapter, regardless of when the design capacity report is actually submitted, no later than:

(1) June 10, 1996 for MSW landfills that commenced construction, modification, or reconstruction on or after May 30, 1991 but before March 12, 1996;

(2) Ninety days after the date of commenced construction, modification, or reconstruction for MSW landfills that commence construction, modification, or reconstruction on or after March 12, 1996.

(d) When a MSW landfill subject to this subpart is closed, the owner or operator is no longer subject to the requirement to maintain an operating permit under part 70 or 71 of this chapter for the landfill if the landfill is not otherwise subject to the requirements of either part 70 or 71 and if either of the following conditions are met:

(1) The landfill was never subject to the requirement for a control system under paragraph (b)(2) of this section; or

(2) The owner or operator meets the conditions for control system removal specified in paragraph (b)(2)(v) of this section.

8. Amend § 60.753 by revising the introductory text of § 60.753 and the second sentence of paragraph (d) and the first sentence of paragraph (g) to read as follows:

§ 60.753 Operational standards for collection and control systems.

Each owner or operator of an MSW landfill with a gas collection and control system used to comply with the provisions of § 60.752(b)(2)(ii) of this subpart shall: * * *

(d) * * * To determine if this level is exceeded, the owner or operator shall conduct surface testing around the perimeter of the collection area and along a pattern that traverses the landfill at 30 meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover. * * *

* * * * *

(g) If monitoring demonstrates that the operational requirements in paragraphs (b), (c), or (d) of this section are not met, corrective action shall be taken as specified in § 60.755(a)(3) through (5) or § 60.755(c) of this subpart. * * *

9. Amend § 60.754 as follows:

a. In the last sentences of paragraph (a)(1)(i) and (a)(1)(ii) remove the phrase "if the documentation provisions of § 60.758(d)(2) are followed" and add, in

its place, "if documentation of the nature and amount of such wastes is maintained";

b. In paragraph (a)(4)(ii) remove the last sentence and add in its place, "The calculation of the methane generation rate constant is performed only once, and the value obtained from this test shall be used in all subsequent annual NMOC emission rate calculations.";

c. In paragraphs (a)(5) and (b)(3) remove the phrase "as provided in § 60.752(b)(2)(i)(B)";

d. In paragraph (d), remove the words "Method 25" and add, in its place "Method 25C";

e. Revise the introductory text of paragraph (a)(1) and revise paragraph (c) to read as follows:

§ 60.754 Test methods and procedures.

(a)(1) The landfill owner or operator shall calculate the NMOC emission rate using either the equation provided in paragraph (a)(1)(i) of this section or the equation provided in paragraph (a)(1)(ii) of this section. Both equations may be used if the actual year-to-year solid waste acceptance rate is known, as specified in paragraph (a)(1)(i), for part of the life of the landfill and the actual year-to-year solid waste acceptance rate is unknown, as specified in paragraph (a)(1)(ii), for part of the life of the landfill. The values to be used in both equations are 0.05 per year for k, 170 cubic meters per megagram for L_O, and 4,000 parts per million by volume as hexane for the C_{NMOC}. For landfills located in geographical areas with a thirty year annual average precipitation of less than 25 inches, as measured at the nearest representative official meteorologic site, the k value to be used is 0.02 per year.

* * * * *

(c) When calculating emissions for PSD purposes, the owner or operator of each MSW landfill subject to the provisions of this subpart shall estimate the NMOC emission rate for comparison to the PSD major source and significance levels in §§ 51.166 or 52.21 of this chapter using AP-42 or other approved measurement procedures.

* * * * *

10. Amend § 60.755 as follows:

a. In paragraphs (a)(3) and (a)(5), add a sentence at the end of each paragraph reading "An alternative timeline for correcting the exceedance may be submitted to the Administrator for approval.";

b. Revise paragraph (a)(4) to read as follows:

§ 60.755 Compliance provisions.

(a) * * *

(4) Owners or operators are not required to expand the system as required in paragraph (a)(3) of this section during the first 180 days after gas collection system startup.

* * * * *

c. In paragraph (b) introductory text, in the last sentence, remove the phrase "within 60 days of the date in which" and add in its place, "no later than 60 days after the date on which";

d. In paragraph (c)(1), delete the phrase "and along a serpentine pattern spaced 30 meters apart (or a site-specific established spacing)" and add in its place, "and along a pattern that traverses the landfill at 30 meter intervals (or a site-specific established spacing)".

11. Amend § 60.756 as follows:

a. In paragraph (a) introductory text, remove the phrase "or other temperature measuring device" and add, in its place, "other temperature measuring device, or an access port for temperature measurements";

b. In paragraph (b)(1), remove the phrase "an accuracy of" and add in its place, "a minimum accuracy of";

c. In paragraph (b)(2), introductory text, remove the phrase "A gas flow rate measuring device that provides a measurement of gas flow" and add, in its place, "A device that records flow";

12. Amend § 60.757 by revising paragraphs (a)(1), (a)(2), (a)(3), (b)(1)(i) and (g) introductory text to read as follows:

§ 60.757 Reporting requirements.

* * * * *

(a) * * *

(1) The initial design capacity report shall fulfill the requirements of the notification of the date construction is commenced as required by § 60.7(a)(1) and shall be submitted no later than:

(i) June 10, 1996, for landfills that commenced construction, modification, or reconstruction on or after May 30, 1991 but before March 12, 1996 or

(ii) Ninety days after the date of commenced construction, modification, or reconstruction for landfills that commence construction, modification, or reconstruction on or after March 12, 1996.

(2) The initial design capacity report shall contain the following information:

(i) A map or plot of the landfill, providing the size and location of the landfill, and identifying all areas where solid waste may be landfilled according to the permit issued by the State, local, or tribal agency responsible for regulating the landfill.

(ii) The maximum design capacity of the landfill. Where the maximum design capacity is specified in the permit issued by the State, local, or tribal agency responsible for regulating the landfill, a copy of the permit specifying the maximum design capacity may be submitted as part of the report. If the maximum design capacity of the landfill is not specified in the permit, the maximum design capacity shall be calculated using good engineering practices. The calculations shall be provided, along with the relevant parameters as part of the report. The State, Tribal, local agency or Administrator may request other reasonable information as may be necessary to verify the maximum design capacity of the landfill.

(3) An amended design capacity report shall be submitted to the Administrator providing notification of an increase in the design capacity of the landfill, within 90 days of an increase in the maximum design capacity of the landfill to or above 2.5 million megagrams and 2.5 million cubic meters. This increase in design capacity may result from an increase in the permitted volume of the landfill or an increase in the density as documented in the annual recalculation required in § 60.758(f).

(b) * * *

(1) * * *

(i) The initial NMOC emission rate report may be combined with the initial design capacity report required in paragraph (a) of this section and shall be submitted no later than indicated in paragraphs (b)(1)(i)(A) and (B) of this section. Subsequent NMOC emission rate reports shall be submitted annually thereafter, except as provided for in paragraphs (b)(1)(ii) and (b)(3) of this section.

(A) June 10, 1996, for landfills that commenced construction, modification, or reconstruction on or after May 30, 1991, but before March 12, 1996, or

(B) Ninety days after the date of commenced construction, modification, or reconstruction for landfills that commence construction, modification, or reconstruction on or after March 12, 1996.

* * * * *

(g) Each owner or operator seeking to comply with § 60.752(b)(2)(iii) shall include the following information with the initial performance test report required under § 60.8:

* * * * *

13. Amend § 60.758 as follows:

a. Remove the introductory text;

b. At the beginning of paragraphs (a), (b) introductory text, (c) introductory text, (d) introductory text, and (e), add the phrase "Except as provided in § 60.752(b)(2)(i)(B),";

c. In paragraph (a), remove the phrase "on-site records of the maximum design capacity" and add, in its place "on-site records of the design capacity report which triggered § 60.752(b)";

d. Add paragraph (f) to read as follows:

§ 60.758 Recordkeeping Requirements.

* * * * *

(f) Landfill owners or operators who convert design capacity from volume to mass or mass to volume to demonstrate that landfill design capacity is less than 2.5 million megagrams or 2.5 million cubic meters, as provided in the definition of "design capacity", shall keep readily accessible, on-site records of the annual recalculation of site-specific density, design capacity, and the supporting documentation. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable.

14. Amend § 60.759 as follows:

a. In paragraph (a)(3)(iii), remove the sentence "The values for k, L_O, and $C_{NM}OC$ determined in field testing shall be used, if field testing has been performed in determining the NMOC emission rate or the radii of influence." and add, in its place, the sentence "The values for k and $C_{NM}OC$ determined in field testing shall be used, if field testing has been performed in determining the NMOC emission rate or the radii of influence (the distance from the well center to a point in the landfill where the pressure gradient applied by the blower or compressor approaches zero)."

b. In paragraph (a)(3)(iii), remove the sentence "If field testing has not been performed, the default values for k, L_O, and $C_{NM}OC$ provided in § 60.754(a)(1) shall be used" and add, in its place, the sentence "If field testing has not been performed, the default values for k, L_O and $C_{NM}OC$ provided in § 60.754(a)(1) or the alternative values from § 60.754(a)(5) shall be used.

[FR Doc. 98-15007 Filed 6-15-98; 8:45 am]

BILLING CODE 6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 180, 185 and 186

[OPP-300663; FRL-5793-5]

RIN 2070-AB78

Quizalofop-p ethyl ester; Pesticide Tolerance

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This regulation establishes tolerances for combined residues of quizalofop-p ethyl ester [ethyl (*R*)-(2-[4-((6-chloroquinoxalin-2-yl)oxy)phenoxyl] propanoate), and its acid metabolite quizalofop-p [(*R*)-(2-[4-((6-chloroquinoxalin-2-yl)oxy)phenoxyl]propionate) and the *S* enantiomers of the ester and the acid, all expressed as quizalofop-p ethyl ester in or on canola seed, canola meal, peppermint tops and spearmint tops. DuPont Agricultural Products requested the tolerances for canola and the Interregional Research Project Number 4 (IR-4) requested the tolerances for peppermint and spearmint. These tolerances were requested under the Federal Food, Drug, and Cosmetic Act, as amended by the Food Quality Protection Act of 1996 (Pub. L. 104-170).

DATES: This regulation is effective June 16, 1998. Objections and requests for hearings must be received by EPA on or before August 17, 1998.

ADDRESSES: Written objections and hearing requests, identified by the docket control number, [OPP-300663], must be submitted to: Hearing Clerk (1900), Environmental Protection Agency, Rm. M3708, 401 M St., SW., Washington, DC 20460. Fees accompanying objections and hearing requests shall be labeled "Tolerance Petition Fees" and forwarded to: EPA Headquarters Accounting Operations Branch, OPP (Tolerance Fees), P.O. Box 360277M, Pittsburgh, PA 15251. A copy of any objections and hearing requests filed with the Hearing Clerk identified by the docket control number, [OPP-300663], must also be submitted to: Public Information and Records Integrity Branch, Information Resources and Services Division (7502C), Office of Pesticide Programs, Environmental Protection Agency, 401 M St., SW., Washington, DC 20460. In person, bring a copy of objections and hearing requests to Rm. 119, CM #2, 1921 Jefferson Davis Hwy., Arlington, VA.

A copy of objections and hearing requests filed with the Hearing Clerk may also be submitted electronically by sending electronic mail (e-mail) to: opp-docket@epamail.epa.gov. Copies of objections and hearing requests must be submitted as an ASCII file avoiding the use of special characters and any form of encryption. Copies of objections and hearing requests will also be accepted on disks in WordPerfect 5.1/6.1 file format or ASCII file format. All copies of objections and hearing requests in electronic form must be identified by the docket control number [OPP-300663]. No Confidential Business Information (CBI) should be submitted through e-mail. Electronic copies of objections and hearing requests on this rule may be filed online at many Federal Depository Libraries.

FOR FURTHER INFORMATION CONTACT: By mail: Sidney Jackson, Registration Division (7505C), Office of Pesticide Programs, Environmental Protection Agency, 401 M St., SW., Washington, DC 20460. Office location, telephone number, and e-mail address: Crystal Mall #2, 1921 Jefferson Davis Hwy., Arlington, VA, (703) 305-7610; e-mail: jackson.sidney@epamail.epa.gov.

SUPPLEMENTARY INFORMATION: In the **Federal Register** published on October 29, 1997 (62 FR 56176 (mint)) (FRL-5749-7) and December 17, 1997, 62 FR 66080 (canola)) (FRL-5758-3), EPA, issued notices pursuant to section 408 of the Federal Food, Drug, and Cosmetic Act (FFDCA), 21 U.S.C. 346a(e) announcing the filing of pesticide petitions (PP) 6E4652 and 5F4545 for tolerances by the IR-4 and DuPont Agricultural Products, Wilmington, Delaware. These notices included a summary of the petitions prepared by DuPont Agricultural Products, Wilmington, Delaware, the registrant. There were no comments received in response to these notices of filing.

The petitions requested that 40 CFR 180.441 be amended by establishing tolerances for combined residues of the herbicide quizalofop-p ethyl ester [ethyl (*R*)-(2-[4-((6-chloroquinoxalin-2-yl)oxy)phenoxyl] propanoate), and its acid metabolite quizalofop-p [(*R*)-(2-[4-((6-chloroquinoxalin-2-yl)oxy)phenoxyl] propionate) and the *S* enantiomers of the ester and the acid, all expressed as quizalofop-p ethyl ester, in or on canola seed at 1.0 part per million (ppm), canola meal at 1.5 ppm, and peppermint tops and spearmint tops at 2.0 ppm. .

I. Risk Assessment and Statutory Findings

New section 408(b)(2)(A)(i) of the FFDCA allows EPA to establish a tolerance (the legal limit for a pesticide chemical residue in or on a food) only if EPA determines that the tolerance is "safe." Section 408(b)(2)(A)(ii) defines "safe" to mean that "there is a reasonable certainty that no harm will result from aggregate exposure to the pesticide chemical residue, including all anticipated dietary exposures and all other exposures for which there is reliable information." This includes exposure through drinking water and in residential settings, but does not include occupational exposure. Section 408(b)(2)(C) requires EPA to give special consideration to exposure of infants and

Appendix J

Key Elements of an Acceptable Section 111(d) State Plan

Key Elements of an Acceptable Section 111(d) State Plan

States must submit to the Environmental Protection Agency (EPA) State Plans to implement and enforce the Emission Guidelines promulgated for Municipal Solid Waste (MSW) landfills pursuant to Section 111(d) of the Act. Section 111(d) requires that the state submit the State Plan not later than 9 months after EPA promulgates the Emission Guidelines. EPA promulgated the Emission Guidelines (40 CFR Part 60, Subpart Cc) on March 12, 1996, thus, the State Plans are due no later than December 12, 1996.

States must adopt their State Plans according to state procedures prior to official submittal to EPA. *[60.23 (a)]* The official procedures for adopting and submitting State Plans are codified in 40 CFR Part 60, Subpart B. EPA promulgated the original provisions on November 17, 1975, and then amended them on December 19, 1995, to incorporate changes specific to solid waste incineration. These changes, which were necessary to conform with the solid waste incineration requirements under Section 129 of the Act, are not relevant to MSW landfills. Thus, the procedures described in the original provisions for adopting and submitting State Plans still apply to MSW landfills and are reflected in the key elements given below.

The following pages include information about legal authority, emission inventories, emission standards and other emission limitations, process for review of design plans, compliance schedules, public participation, source surveillance, compliance assurance, enforcement, as required by 40 CFR Part 60, Subparts B and Cc. In addition, cross-references to relevant sections of the subparts are provided.

A. <u>Legal Authority</u> *[60.26(a)]*

1. The State Plan shall include demonstration of the state's legal authority to:

   (a) adopt emission standards (enforceable conditions) and compliance schedules applicable to the designated facilities and designated pollutants for which the State Plan is submitted

   (b) enforce applicable laws, regulations, standards, and compliance schedules, and seek injunctive relief

   (c) obtain information necessary to determine compliance

   (d) require recordkeeping, make inspections, and conduct tests

   (e) require the use of monitors and require emission reports of owners or operators

   (f) make emission data publicly available *[60.26(a)]*

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2. The state must specifically identify the provisions above and include copies of the provisions of the law establishing such legal authority unless they have been approved as a portion of a previous Section 111(d) State Plan or SIP. To facilitate its review of State Plans, EPA encourages states to submit an opinion by the state's Attorney General as part of the demonstration required above. States may use previously submitted Attorney General opinions (for example, under Title V) to the extent those documents specifically address the requirements of Section 60.26 as they apply to the designated facilities and the designated pollutants. *[60.26(b)]*

3. The legal authority shown must be in effect at time of State Plan submission. *[60.26(c)]*

4. The state may authorize another state governmental agency to carry out a portion of the State Plan, provided the state demonstrates that the state governmental agency has adequate authority. *[60.26(e)]*

5. The state may authorize a local agency to carry out a portion of the State Plan provided that the state demonstrates that the local agency has adequate legal authority to implement that portion of the State Plan and the state is not relieved of responsibility. *[60.26(e)]*

If earlier demonstrations of legal authority by the state meet the requirements of § 60.26, the state will simply need to include copies of such demonstrations in the State Plan.

B. Source and Emission Inventories

The State Plan must include a complete source inventory of existing MSW landfills in the state that are regulated by the Emission Guidelines. *[60.25(a)]* The inventory must include the name and location of all existing landfills, whether open or closed, that have accepted waste since November 8, 1987 or have additional capacity for future waste acceptance. Landfills with design capacities both above and below the 2.5 million Mg/yr or 2.5 million M^3/yr design capacity cutoffs must be included. New landfills (i.e., those that commenced construction, modification, or reconstruction on or after May 30, 1991) do not have to be included in the inventory.

For each landfill in the source inventory, the State Plan must include emission data for the designated pollutants (MSW landfill emissions, measured as NMOC). *[60.25(a)]* Emission data must be included where available, but emission estimates can be used if emission data is not available. States can use emission estimation procedures from AP-42, "Compilation of Air Pollutant Emission Factors" to estimate landfill NMOC emission rates for the state inventory. (AP-42 procedures should not be used to determine applicability of, or compliance with, the Emission Guidelines.)

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In addition to the initial inventory, updates are required. *[60.25(f)(5]* The updated information is required to be submitted annually in the 51.321 reports. *[60.24(e)(1)]* The emission data should be submitted to the Aerometric Information Retrieval System (AIRS) *[51.321-51.323]*

C. Emission Standards

1. The emission standards shall be no less stringent than the Emission Guidelines. *[60.24(c)]*
   However, under certain limited conditions and on a case-by-case basis, states may apply less stringent emission standards or longer compliance schedules. This reduced stringency is allowed if the state demonstrates with respect to the designated facility or class of facilities that:

   a. the cost of control would be unreasonable because of plant age, location, or basic process design;
   b. it would be physically impossible to install necessary control equipment; or
   c. there are other factors specific to the facility or class of facilities that make application of a less stringent standard or final compliance time significantly more reasonable. *[60.24f]*

NOTE: Nothing in the Clean Air Act nor the CFR restricts the state from having standards and schedules more stringent than the Emission Guidelines. *[60.24(g)]*

2. The State Plan shall include the specific emission limitations, preferably cross-referenced to the specific Emission Guideline requirements. *[60.24(a)]*

3. Test methods and procedures for determining compliance shall be specified. *[60.24(b)2]*

4. If the methods and procedures are not identical to those in Sections 60.34c, 60.755, and 60.756, the state must demonstrate equivalence or request EPA approval of acceptable alternatives per current EPA method review procedures. *[60.24(b)(2)]*

5. If emission standards are adopted by local agencies or other state agencies, they must also be included in the State Plan and if not identical to the Emission Guidelines, then the state must show that they are at least as protective as the emission guidelines except as specified in "1," above. *[60.24(a)]*

D. Process for Review of Design Plans

Subpart Cc requires site-specific design plans for the required gas collection and control systems. The State Plan must also include a process for state review and approval of design

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plans. These landfill State Plan requirements are unique to landfills because they are required by Subpart Cc, rather than Subpart B.

The design plan must be prepared by a professional engineer, must meet the design criteria in Section 60.752(b)(2)(ii) of Subpart WWW, and must be submitted to the state for approval. For further information about the design criteria and for examples of alternative designs, refer to "Municipal Solid Waste Landfills, Volume 1: Summary of the Requirements for the New Source Performance Standards and Emission Guidelines for Municipal Solid Waste Landfills" (EPA-453/R-96-004).

1. For approval, a State Plan shall include the installation of a collection and control system meeting the conditions provided in Section 60.752(b)(2)(ii) of Subpart Cc at each MSW landfill meeting the conditions of Section 60.33c(a). [*60.33c(b)*]

2. The State Plan shall include a process for state review and approval of the site-specific design plans for the gas collection and control system(s). [*60.33c(b)*] The description of the process in the State Plan could include information on review responsibilities, schedules, and notification procedures such as communication of reasons for disapproval.

E. Compliance Schedules

1. Compliance schedules must match the Cc and B specifications except as specified above in "1" under Emission Standards. *[Subpart Cc,60.36c]*

2. For compliance schedules for MSW landfills extending more than 12 months beyond the date required for submittal of the plan (December 12, 1996), the compliance schedule must include legally enforceable increments of progress towards compliance for that MSW landfill. Each increment of progress in Section 60.21(h) of Subpart B must have a compliance date and must be included as an enforceable date in the State Plan. The State Plan may include such additional increments of progress as may be necessary to permit close and effective supervision of progress towards final compliance. *[60.24(e)(1), & 60.21(h)]*

   The minimum increments of progress are as follows:

   (a) Submittal of Final Control Plan (Design Plan); *[60.21(h)(1)]* For landfills, the design must include the information specified in § 60.752(b)(2) of Subpart WWW.

   (b) Awarding of contracts for controls systems or process modifications or orders for purchase of components; *[60.21(h)(2)]*

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(c) Initiation of on-site construction or installation of the air pollution control device(s) or process changes; *[60.21(h)(3)]*

(d) Completion of on-site construction or installation of control equipment or process changes; *[60.21(h)(4)]*

(e) Final compliance. *[60.21(h)(5)]*

These increments of progress can be set as calendar dates or floating dates tied to the effective date of EPA's approval of the State plan for MSW landfills or the date of the first Annual Emission Rate Report that shows that NMOC emissions equal to or exceeding 50 Mg/yr. For example, the date for submitting a final control plan (design plan) could be set as 1 year after the date of the first Annual Emission Rate Report showing that the NMOC emission rate is 50 Mg/yr or greater. This timing is consistent with Subparts Cc and WWW.

3. The State Plan may include one set of increments with compliance dates applicable to all MSW landfills, or the State Plan may vary the compliance dates to address specific issues relevant to individual landfills. However, the enforceable increments of progress must be arranged chronologically and the compliance dates must be set to ensure full compliance with the applicable requirements *as expeditiously as practicable*. *[60.24(c)]* For example, a State Plan that requires an MSW landfill to "submit a final control plan (design plan) no later than 24 months after the effective date of a State emission standard" will be closely examined to determine whether the state is requiring the MSW landfill to comply as expeditiously as practicable.

F. Public Participation

Public participation, under the Clean Air Act, is an important right and responsibility of citizens in the state process of developing, adopting, and implementing the required Section 111(d) State Plans. Under 40 CFR Part 60, Subpart B, the minimum requirements for the state to conduct public hearings on the adoption of State Plans and any revisions thereof are as follows:

1. Reasonable notice of one or more public hearing(s) at least 30 days prior to the hearing(s). *[60.23(d)]*

2. One or more public hearing(s) on the State Plan (or revisions) conducted in location(s) within the state. *[60.23(c)(1)]*

3. Date, time and place of hearing(s) prominently advertised in each region affected. *[60.23(d)(1)]* "Region" is defined as "air quality control region". *[60.21(i)]*

4. Availability of draft State Plan for public inspection in at least one location in each region to which it will apply. *[60.23(d)(2)]*

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5. Notice of hearing provided to: (a) EPA Regional Administrator, (b) local affected agencies, and (c) other states affected. *[60.23(d)(3),(4),&(5)]*

6. Retention of hearing records (for example, list of commenters and their affiliation and summary of each presentation and comments submitted and the state's responses to those comments) for at least 2 years. *[60.23(e) and (f)]*

7. Certification that public participation was conducted in accordance with Subpart B and state procedures. *[60.23(f)]* Upon written application by the state agency, EPA may (expected only for limited special cases) approve different procedures provided that they ensure adequate public participation. *[60.23(g)]*

No hearing is required on a state or local emission standard in effect prior to March 12, 1996, the effective date of Subpart Cc, if it was adopted after a public hearing and is at least as stringent as the Emission Guidelines. *[60.23(c)(3)]*

Similarly, no public hearing is required for any change to an increment of progress unless the change is likely to cause the facility to be unable to comply with the final compliance date. *[60.23(c)(2)]*

G. Source Surveillance, Compliance Assurance & Enforcement

The State Plan must provide for monitoring the status of compliance. As a minimum, the State Plan shall include:

1. Provisions for legally enforceable procedures to:

   (a) require recordkeeping on nature and amount of emissions and reports to the state. *[60.25(b)(1)]*

   (b) require any additional information to judge compliance. *[60.25(b)(1)]*

2. Provisions for periodic inspection and testing, if necessary. *[60.25(b)(2)]*

3. Provisions for emission data and other compliance monitoring information to be correlated with applicable emission standards and be made available to the public. "Correlated" means showing the relationship between the measured or estimated amounts of emissions and the amounts of such emissions allowable. For example, the emissions should be in the same units and averaging times. This would include the annual emission rate reports, in Mg/yr, that must be submitted by uncontrolled landfills. The reported annual emission rate would be compared to

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the 50 Mg/yr threshold to determine whether controls must be installed.[1] *[60.25(a) and (c)]*

4. MSW landfill requirements for Testing, Monitoring, Recordkeeping, and Reporting that are identical to those specified in 60.34c, 60.35c *[Subpart Cc]*, and 60.755, 60.756, 60.757, 60.758. *[Subpart WWW, referred to by Subpart Cc]*

5. Specific identification of the provisions in 1 through 4 above. Copies of such provisions should be included unless they have been approved as portions of a preceding Section 111(d) State Plan or State Implementation Plan (SIP) and the state demonstrates that the provisions are applicable and the requirements of 60.26 (legal authorities) are met. *[60.25(d)]*

6. Commitment to submit reports on progress in plan enforcement to the EPA Regional Administrator on an annual basis and include it in the reports required by 51.321. *[60.25(e) and (f)]* Each progress report shall include: enforcement actions, achievement of increments of progress, identification of sources that have ceased operation, emission inventory information for sources that were not in operation at the time of plan development, updated emission inventory and compliance information, and copies of technical reports on all performance testing, including concurrent process data. *[60.25(f)(1) through 60.25(f)(6)]*

Note: Some states and regions have developed more specific or tailored reporting and recordkeeping procedures via Memoranda of Agreements, Program Specific Guidance for Section 105 Grants, and the Timely and Appropriateness Guidance that should also be followed. For example, some regions prefer that the state retain the performance test report until the region needs to review it as part of a compliance determination or other action.

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[1]For landfills that require control, the emission standards are expressed in terms of design criteria and operational requirements for the gas collection system and a percent reduction for the control device, instead of emission rate limits. Therefore, the Subpart B requirement to "correlate" the annual emission inventory information (in Mg/yr, discussed in Section 3.4) with the MSW landfill emission standards is not helpful for controlled MSW landfills. Thus, the more appropriate correlation is to the NMOC threshold in Mg/yr. The performance testing, monitoring, and recordkeeping procedures in the Emission Guidelines are appropriate for determining compliance with the percent reduction limit and collection system requirements.

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Appendix K

Memo: Emission Inventory for MSWLF State Plans

January 27, 1997

MEMORANDUM

SUBJECT: Emission Inventories for Existing Municipal Solid Waste (MSW) Landfills with Design Capacities below 2.5 million Mg or 2.5 million m^3

FROM: Bruce C. Jordan, Director
Emission Standards Division (MD-13)

Robert G. Kellam, Acting Director
Information Transfer and Program Integration Division (MD-12)

TO: Regional Air Directors, Regions I-X

Introduction

The States are required to prepare and submit State plans for existing MSW landfills [landfills that have accepted waste since November 8, 1987 or have the capacity to accept future waste and are not new; i.e., not subject to 40 CFR Part 60, Subpart WWW, new source performance standards (NSPS)]. This State plan is required under 40 CFR 60, Subparts B and Cc [Emission Guidelines (EG's)]. The plan will state the requirements that existing MSW landfills will need to comply with to meet the EG's. Also, as part of the State plan, 40 CFR 60.25 requires the States to include "an inventory of all designated facilities, including emissions data for the designated pollutants." Id.

In addition to the requirement for State plans, owners and operators of MSW landfills with design capacities of less than 2.5 million Mg or 2.5 million m^3 are required to submit a design capacity report under the EG's and NSPS [40 CFR 60.752 (a), 60.757. See also, 40 CFR 60.35(c)]. However, unlike owners and operators of larger MSW landfills who must also submit a nonmethane organic compound (NMOC) emissions rate report and possibly install gas collection and controls, no additional requirements apply to landfills with design capacities of less than 2.5 million Mg or 2.5 million m^3. As noted in the preamble to the

final rule, "small landfills below 2.5 million Mg design capacity are not subject to (emission) standards under section 111 because they are not subject to controls and are not subject to emission limits," 61 FR 9905, 9912 (March 12, 1996).

Summary

In view of the limited requirements of the EG and NSPS on landfill owners and operators of MSW landfills below 2.5 million Mg or 2.5 million m^3, the Environmental Protection Agency (EPA) will allow States, in limited circumstances, to submit emission inventories as part of State plans without requiring that, in all cases, that States develop emissions data for MSW landfills below 2.5 million Mg or 2.5 million m^3 where development of such data would be unreasonable and impractical. However, where accurate data are already available, or can reasonably be generated without undue expense or effort, States should require and include such data in their State plans. Example situations of "reasonable and practical" are given below in the section, Requirements of State Plans: Emissions Data. This easing of the NMOC emission inventory requirement, however, does not relieve States of the obligation to provide, as part of their State plan, an inventory of all existing MSW landfills within the State.

The EPA believes that allowing States to provide emissions data for such MSW landfills with design capacities below 2.5 million Mg or 2.5 million m^3 only where accurate and reasonably available information can be generated, is reasonable given that the applicable NSPS and the EG simply require a design capacity report and do not require additional emissions monitoring or controls. The EPA also believes that requiring such information in all cases will either lead to the submission of inaccurate, misleading and provisional information or to additional and costly testing inconsistent with EPA's previous determination to only require design capacity reports for such landfills. [See e.g., 61 FR 9905, 9916 (March 12, 1996), which states that "The design capacity cutoff of 2.5 million Mg or 2.5 million cubic meters was chosen . . . to relieve as many small businesses and municipalities as possible from the regulatory requirements while still maintaining significant emission reduction."

This guidance memo does not, however, preclude States from including emissions information from these existing MSW landfills in their State plans and in their annual reporting of emissions to EPA if they choose to do so. As noted previously, it also does not relieve States from the requirement to provide an inventory of existing landfills in State plans.

The EPA reserves the right to request emissions information under section 114(a) of the Clean Air Act, if it determines that such information can be obtained reasonably and practically.

Requirements of State Plans: Emissions Data

In summary of the previous discussion, States need not include NMOC emissions from MSW landfills with a design capacity below 2.5 million Mg or 2.5 million m^3 from the State plan emission inventory where the estimation of these emissions is unreasonable and impractical. This section addresses specific situations of "unreasonable and impractical" and "reasonable and practical."

It may be unreasonable and impractical for an MSW landfill below 2.5 million Mg or 2.5 million m^3 to estimate NMOC emissions when a landfill is closed and there are no records of waste in place. However, States should require emissions data when it is reasonable and practical to obtain the information needed to calculate NMOC emissions, for example, when the amount of waste deposited and age of the waste can be reasonably obtained. If waste has been recently deposited such that this information would be reasonably expected to be available, then these NMOC emissions should be included in the emission inventory. Also, if a landfill has a design capacity below but close to 2.5 million Mg or 2.5 million m^3, greater consideration should be given before a decision is made to not require NMOC emissions in the emission inventory because the public may have more interest in the environmental impact of the emissions from such a landfill.

In the situation where an MSW landfill is subject to title V operating permits because it is a major source or because of another reason [e.g., subject to another NSPS or national emission standard for hazardous air pollutants (NESHAP)], this landfill should comply with the emission inventory requirement even if the landfill is below 2.5 million Mg or 2.5 million m^3 in design capacity. The reason is that emissions from title V permitted landfills must be reported under title V and thus, it would be reasonable to include these emissions estimates in the emission inventory for the State plan.

In addition to the requirement to report NMOC emissions in the State plan, 40 CFR 60.25 also requires the annual reporting of emissions by States to EPA for existing landfills whose emissions have changed more than 5 percent from the most recently submitted emissions data. For States with landfills with design capacities below 2.5 million Mg or 2.5 million m^3 for which emissions data were not initially reported, this emissions reporting requirement would not necessarily be reasonable or practical and, thus, States are not required to meet this reporting requirement for such landfills. However, where a State previously did not require emissions data for a landfill close to or at the 2.5 million Mg or 2.5 million m^3 cutoff, and there is reason to believe emissions may have increased by greater than 5 percent, a State may want to reconsider whether emissions data should be required.

The allowance for exclusion of NMOC emissions from certain landfills below 2.5 million Mg or 2.5 million m^3 from the emission inventory does not affect the requirement for States to submit an inventory of existing MSW landfills with the State plans. The 40 CFR

60.25 requires such an inventory of landfills in the State plan and this memo does not modify this requirement. It is reasonable to expect States to know what landfills are in their geographic area and to provide this information in their State plans.

If you have any questions on this guidance, please feel free to contact Mary Ann Warner at (919) 541-1192.

cc: Patricia Bowlin, R-IX
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15 SUPPLEMENTARY NOTES

Project Officer is Mary Wilkins, Mail Drop 12 (919-541-5229)
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16 ABSTRACT

This document summarizes the requirements for section 111(d) State plans for municipal solid waste (MSW) landfills. The March 12, 1996 Emission guidelines required States to submit State plans that explain how they will implement and enforce the guidelines for existing MSW landfills. This document explains the required content of State plans, outlines the time line and responsibilities for developing and submitting State plans, and answers general questions about how to prepare State plans.

17 KEY WORDS AND DOCUMENT ANALYSIS

a DESCRIPTORS	b IDENTIFIERS/OPEN ENDED TERMS	c
Air pollution Municipal solid waste landfill Emission guidelines Section 111(d) Clean Air Act	Nonmethane organic compounds Methane State plan Implementation guidance Existing municipal solid waste landfills	

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AZ MSW Landfill Timeline.pptx
State Plan for Implementing the Municipal Solid Waste Landfill Emission ....docx

Attached is their timeline and current draft of their plan.

We'll be talking to Ryan Templeton and Matt Ivers.

Agenda:

1. The role of Subparts Cc and WWW in relation to Subparts Cf and XXX (see Matt's email from 2/16)

2. Adequacy of Arizona's MSWLF emission inventory (see my email from 2/16)

3. ADEQ's proposed timeline for submittal

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From: BECKHAM, LISA
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Subject: Regulatory Updates - May 2017
Rulemaking Updates May 2017.pdf

Hi everyone,

Attached are the latest updates. Let me know if you have any questions – of if there is something you have questions about that I didn't include.

Also, please let me know if there are others at your agency that I should add to this email list.

Lisa Beckham

Environmental Engineer

Air Permits Office

EPA Region 9

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Hi everyone,

It's been a few months since I've sent one out, but attached are the latest updates. Let me know if you have any questions – or if there is something you have questions about that I didn't include.

Also, please let me know if there are others at your agency that I should add to this email list.

Lisa Beckham

Environmental Engineer

Air Permits Office

EPA Region 9

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Regulatory Updates
March 2017
EPA Region 9

New Items!

1. **Appendix W -** On December 20, 2016, the Administrator signed a final rule that revises the *Guideline on Air Quality Models*. The *Guideline* provides EPA-recommended models and other techniques, as well as guidance for their use, for predicting ambient concentrations of air pollutants. EPA's finalized changes, enhance the formulation and application of the agency's AERMOD dispersion model, prescribe modeling techniques for secondarily formed fine particle and ozone pollution for single sources and makes various editorial improvements. The final rule was published in the Federal Register on January 17, 2017, and the effective date of this action has been deferred to March 21, 2017.

   More info: https://www3.epa.gov/ttn/scram/appendix_w2016.htm

   Fact Sheet: https://www3.epa.gov/tt n/scram/appendix_w/2016/Appendix_W-Fact_Sheet.pdf

2. **Draft Guidance on the Development of Modeled Emission Rates for Precursors (MERPs) as a Tier 1 Demonstration Tool for Ozone and PM2.5 under the PSD Permitting Program** – **comments due March 31, 2017.** https://www3.epa.gov/ttn/scram/guidance/guide/EPA454_R-16-006.pdf

   Webinar: **March 21, 2017 from 1-2pm EDT** – link to adobe connect on SCRAM page, link below.

   Previous webinar slides (1/19/2017):
   https://www3.epa.gov/ttn/scram/appendix_w/2016/MERPs_WebinarPresentation_01192017.pdf

   More information, SCRAM home: https://www.epa.gov/scram (see Announcements on right side of page)

3. **$PM_{2.5}$ NSR Implementation Rule Precursor Demonstration Guidance.** This guidance supplements the PM2.5 Implementation Rule and provides the process in which permitting authorities can opt out for one or more of the $PM_{2.5}$ precursors. **Comments on the draft guidance is due March 31, 2017.**

   More info: https://www.epa.gov/pm-pollution/draft-pm25-precursor-demonstration-guidance

4. **Mercury and Air Toxics Standards (MATS) Completion of Electronic Reporting Requirements** final rule was signed on 1/9/2017, but has been withdrawn from the Office of Federal Register. Administrator McCarthy signed a final rule for portions of EPA's proposal to streamline "e-reporting" in the MATS rule. The final rule allows power plants to submit certain emissions reports as PDFs until July 1, 2018, while EPA works to put a single e-reporting system in place for MATS. The final rule also clarifies two mercury measurement quality assurance instructions. EPA continues to review comments on the other issues that were part of the MATS e-reporting streamlining proposal. However, the rule has been withdrawn for publication in the Federal Register.

   More information: https://www.epa.gov/mats/re gulatory-actions-final-mercury-and-air-toxics-standards-mats-power-plants

5. The **National Emission Standards for Hazardous Air Pollutants: Ferroalloys Production** final rule was signed 12/28/16, and published in the **Federal Register** 1/18/17, at 82 FR 5401. This action sets forth the EPA's final decision on the issues for which it announced reconsideration on 7/12/16, that pertain to certain aspects of the 6/30/15, final amendments for the Ferroalloys Production source category regulated under national emission standards for hazardous air pollutants.

   Fact Sheet: https://www.epa.gov/stationary-sources-air-pollution/fact-sheet-ferroalloys-reconsideration-final-rule-december-2016

   More information: https://www.epa.gov/stationary-sources-air-pollution/ferromanganese-and-silicomanganese-production-national-emission

6. A notice concerning **Minor Revisions to AP-42 Section 13.5: Industrial Flares** was signed 1/13/17, and published in the **Federal Register** 1/23/17, at 82 FR 5821. On 12/14/16, the EPA issued minor revisions to AP-42 Section 13.5: Industrial Flares. AP-42 is the primary compilation of the EPA's emissions factor information. The EPA finalized these revisions in compliance with a settlement agreement entered into with Air Alliance Houston, Community In-Power and Development Association, Inc., Louisiana Bucket Brigade, and Texas Environmental Justice Advocacy Services (Plaintiffs).

   More information: https://www.epa.gov/air -emissions-factors-and-quantification/new-and-revised-emissions-factors-flares-and-new-emissions

7. **NESHAP: Publicly Owned Treatment Works** was signed 2/13/17, and published in the **Federal Register** 2/22/17, at 82 FR 11334. On 12/27/16, the EPA proposed the NESHAP for Publicly Owned Treatment Works. We are extending the comment period on the proposed rule that was scheduled to close on 2/27/17, by 30 days until 3/29/17. We are making this change based on one request for additional time to prepare comments on this proposed rule.

   More information: https://www.epa.gov/stationary-sources-air-pollution/publicly-owned-treatment-works-potw-national-emission-standards

8. **Granting Petitions To Add n-Propyl Bromide to the List of Hazardous Air Pollutants – extension of comment period** was signed 2/17/17, and published in the **Federal Register** 3/6/17, at 82 FR 12589. On 1/9/17, the EPA published a draft notice of the rationale for granting petitions to add n-propyl bromide (nPB), also known as 1-bromopropane (1-BP) (Chemical Abstract Service No. 106-94-5), to the list of hazardous air pollutants contained in section 112(b)(1) of the Clean Air Act. The EPA is extending the comment period on the draft notice that was scheduled to close on 3/10/17, by 90 days until 6/8/17. We are making this interim extension as an initial response to allow adequate consideration of a request to extend the comment period by more than 6 months.

   Federal Register notice: https://www.federalregister.gov/documents/2017/03/06/2017-04168/granting-petitions-to-add-n-propyl-bromide-to-the-list-of-hazardous-air-pollutants

   Fact Sheet: https://www.epa.gov/sites/production/files/201612/documents/npb-fact-sheet.pdf

9. **Oil and Gas Industry: Notice Regarding Withdrawal of Obligation to Submit Information** was signed 3/2/17, and published in the **Federal Register** 3/7/17, at 82 FR 12817. The EPA is providing notice that it is

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withdrawing its requests that owners and operators in the oil and natural gas industry provide information on equipment and emissions at existing oil and gas operations. In 2016, the EPA sent letters to more than 15,000 owners and operators in the oil and gas industry, requiring them to provide information. The information request comprised two parts: an "operator survey" that asked for basic information on the numbers and types of equipment at onshore oil and gas production facilities in the United States, and a "facility survey" asking for more detailed information on sources of methane emissions and emissions control devices or practices in use by a representative sampling of facilities in several segments of the oil and gas industry. The EPA is withdrawing both parts of the information request.

More info: https://www.epa.gov/controlling-air-pollution-oil-and-natural-gas-industry/oil-and-gas-industry-information-requests

Background: https://www.epa.gov/controlling-air-pollution-oil-and-natural-gas-industry/background-information-request-oil-and

10. **New Source Performance Standards Electronic Reporting -** EPA has withdrawn the Electronic Reporting for New Source Performance Standards Final Rule from the Office of the Federal Register. This final rule expands the use of electronic reporting and recordkeeping by requiring additional categories of industries to submit to EPA specific air emissions data reports. Electronically submitted data will be readily accessible on an EPA maintained website improving access for state, local and tribal pollution agencies, EPA regional offices and the public. This action will reduce costs to industry by standardizing forms, reducing reporting transcription errors, retaining facility information for reuse in future reports and allowing for simultaneous reporting to multiple agencies. EPA has withdrawn the Electronic Reporting for New Source Performance Standards Final Rule from the Office of the Federal Register.

    More information: https://www.epa.gov/stationary-sources-air-pollution/new-source-performance-standards-electronic-reporting

Other NSPS and NESHAP Updates

For NESHAPs, see also https://www3.epa.gov/airtoxics/mactfnlalph.html for more information.

11. **RICE NSPS/NESHAP**
    Engine info: https://www.epa.gov/stationary-engines

    No recent updates.

12. **Boiler MACT (Subpart DDDDD) - 11/20/15, at 80 FR 72790**
    Boiler MACT info: https://www.epa.gov/stationary-sources-air-pollution/industrial-commercial-and-institutional-boilers-and-process-heaters

    No recent updates.

13. **NESHAP for Area Sources: Industrial, Commercial, and Institutional Boilers** (Subpart JJJJJJ)
    Boiler NESHAP info: https://www.epa.gov/stationary -sources-air-pollution/industrial-commercial-and-institutional-area-source-boilers

    No recent updates.

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14. **Municipal Solid Waste Landfills**

Standards of Performance for Municipal Solid Waste Landfills – 40 CFR part 60 subpart XXX final rule was signed 7/14/16. The EPA is finalizing a new subpart that updates the Standards of Performance for Municipal Solid Waste Landfills. The EPA's review of the standards for municipal solid waste landfills considered landfills that commence construction, reconstruction, or modification after 7/17/14. The final standards also reflect changes to the population of landfills and an analysis of the timing and methods for reducing emissions. This action will achieve additional reductions in emissions of landfill gas and its components, including methane, by lowering the emissions threshold at which a landfill must install controls. This action also incorporates new data and information received in response to the proposed rulemaking and addresses other regulatory issues including surface emissions monitoring, wellhead monitoring, and the definition of landfill gas treatment system.

Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills – 40 CFR part 60 subpart Cf final rule was signed 7/14/16. The EPA is finalizing a new subpart that updates the Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills (Emission Guidelines). The EPA reviewed the landfills Emission Guidelines based on changes in the landfills industry since the Emission Guidelines were promulgated in 1996. This action will achieve additional reductions in emissions of landfill gas and its components, including methane, by lowering the emissions threshold at which a landfill must install controls. This action also incorporates new data and information received in response to an advanced notice of proposed rulemaking and a proposed rulemaking and addresses other regulatory issues including surface emissions monitoring, wellhead monitoring, and the definition of landfill gas treatment system.

More info: https://www.epa.gov/stationary-sources-air-pollution/municipal-solid-waste-landfills-new-source-performance-standards

Other Permitting/Planning Updates

For more information about permitting rules and the NSR program in general, please visit http://www.epa.gov/nsr.

15. **Significant Impact Levels for Ozone and Fine Particle in the Prevention of Significant Deterioration Permitting Program**

EPA is making available for public comment draft guidance and supporting documents recommending Significant Impact levels (SILs) for ozone and fine particle pollution that may be used in the Prevention of Significant Deterioration (PSD) permitting program. SILs have been used in the PSD permitting process for many years to help determine whether proposed construction may be authorized in a Clean Air Act permit. **EPA accepted comments through September 30, 2016.**

Draft Guidance: https://www.epa.gov/sites/production/files/201608/documents/pm2_5_sils_and_ozone_draft_guidance.pdf

Webinar Presentation: https://www.epa.gov/sites/production/files/201608/documents/webinar-ozone-pm25-sils-guidance-20160824.pdf

More info: https://www.epa.gov/nsr/draftguidance-comment-significant-impact-levels-ozone-and-fine-particle-prevention-significant

ED_001764_00001982

To: Sheri Haggard[shaggard@mdaqmd.ca.gov]; Chris Anderson[canderson@mdaqmd.ca.gov]; Roseana Navarro-Brasington[rnbrasington@mdaqmd.ca.gov]; Sam Oktay[soktay@mdaqmd.ca.gov]; Guy Smith[gsmith@mdaqmd.ca.gov]; Vickie Rausch[vrausch@avaqmd.ca.gov]; Harvey, Lornette[Harvey.Lornette@epa.gov]
From: BECKHAM, LISA
Sent: Tue 3/27/2018 4:53:20 PM
Subject: RE: EPA/MD/AV Permitting Update Call
Rulemaking Updates February 2018.pdf
02_26_2018_CARB_CoreyLtr.pdf

Sounds good, it will probably be a short call. Attached is the regulatory update from February. I haven't had a chance to update it since then.

From: Sheri Haggard [mailto:shaggard@mdaqmd.ca.gov]
Sent: Tuesday, March 27, 2018 9:34 AM
To: BECKHAM, LISA <BECKHAM.LISA@EPA.GOV>; Chris Anderson <canderson@mdaqmd.ca.gov>; Roseana Navarro-Brasington <rnbrasington@mdaqmd.ca.gov>; Sam Oktay <soktay@mdaqmd.ca.gov>; Guy Smith <gsmith@mdaqmd.ca.gov>; Vickie Rausch <vrausch@avaqmd.ca.gov>; Harvey, Lornette <Harvey.Lornette@epa.gov>
Subject: RE: EPA/MD/AV Permitting Update Call

Hi Lisa,

We are all here except Guy. Not sure we have a lot to talk about; we are pretty burden down with Emissions Inventory at the moment, but if you have the time to give us a few updates, we're willing ☺

Sheri

From: BECKHAM, LISA [mailto:BECKHAM.LISA@EPA.GOV]
Sent: Tuesday, March 27, 2018 9:31 AM
To: Chris Anderson; Roseana Navarro-Brasington; Sam Oktay; Sheri Haggard; Guy Smith; Vickie Rausch; Harvey, Lornette
Subject: RE: EPA/MD/AV Permitting Update Call

Hi everyone,

Just confirming we are still on for today.

Lisa

-----Original Appointment-----
From: BECKHAM, LISA
Sent: Wednesday, November 29, 2017 2:07 PM
To: BECKHAM, LISA; Chris Anderson - Mojave; Roseana Navarro - Mojave; Sam Oktay - Mojave; Sheri Haggard - Mojave; Guy Smith - Mojave; Vickie Rausch - Antelope; Harvey, Lornette
Subject: EPA/MD/AV Permitting Update Call
When: Tuesday, March 27, 2018 10:00 AM-11:00 AM (UTC-08:00) Pacific Time (US & Canada).
Where: Call: 415-947-8200, Conf#: 415-972-9079, Code: 45-8860

The new call-in number is a bit tricky. It's 3 steps, don't use "#".

To: Ryan Eberle[Ryan.eberle@gric.nsn.us]; kale.walch@pinalcountyaz.gov[kale.walch@pinalcountyaz.gov]; 'Todd Martin - AQDX'[TMartin@mail.maricopa.gov]; 'Scott Treece - AQDX'[TreeceS@mail.maricopa.gov]; 'Richard Sumner - AQDX'[SumnerR@mail.maricopa.gov]; 'Balaji Vaidyanathan'[Vaidyanathan.Balaji@azdeq.gov]; 'Naveen D. Savarirayan'[Savarirayan.Naveen@azdeq.gov]; 'Scott Porter'[Scott.Porter@pima.gov]; Rupesh Patel[Rupesh.Patel@pima.gov]; 'tbbegay@navajo-nsn.gov'[tbbegay@navajo-nsn.gov]; 'rbisht@navajo-nsn.gov'[rbisht@navajo-nsn.gov]; 'Anu Jain'[Anu.Jain@pinalcountyaz.gov]; Chen, Eugene[Chen.Eugene@epa.gov]; TSAI, YA-TING[Tsai.Ya-Ting@epa.gov]; Rios, Gerardo[Rios.Gerardo@epa.gov]
From: BECKHAM, LISA
Sent: Thur 3/1/2018 12:53:16 AM
Subject: RE: AZ Permit Managers Meeting
Rulemaking Updates February 2018.pdf
02_26_2018_CARB_CoreyLtr.pdf

Hi everyone,

Here's the EPA regulatory update and a letter we recently sent to California regarding landfills.

Lisa Beckham

Environmental Engineer

Air Permits Office

EPA Region 9

(415) 972-3811

-----Original Appointment-----
From: Ryan Eberle
Sent: Tuesday, January 30, 2018 6:31 AM
To: Ryan Eberle; BECKHAM, LISA; kale.walch@pinalcountyaz.gov; 'Todd Martin - AQDX'; 'Scott Treece - AQDX'; 'Richard Sumner - AQDX'; 'Balaji Vaidyanathan'; 'Naveen D. Savarirayan'; 'Scott Porter'; Rupesh Patel; 'tbbegay@navajo-nsn.gov'; 'rbisht@navajo-nsn.gov'; 'Anu Jain'; Chen, Eugene; TSAI, YA-TING; Rios, Gerardo
Subject: FW: AZ Permit Managers Meeting
When: Thursday, March 01, 2018 9:00 AM-12:00 PM (UTC-07:00) Arizona.
Where: Lone Butte Development Corporation, 1235 S. Akimel Lane, Chandler, AZ

-----Original Appointment-----
From: Ryan Eberle [mailto:Ryan.Eberle@gric.nsn.us]
Sent: Thursday, January 04, 2018 3:43 PM
To: Ryan Eberle; kale.walch@pinalcountyaz.gov; 'Todd Martin - AQDX'; 'Scott Treece - AQDX'; 'Richard Sumner - AQDX'; 'Balaji Vaidyanathan'; 'Naveen D. Savarirayan'; 'Scott Porter'; Rupesh Patel; 'tbbegay@navajo-nsn.gov'; 'rbisht@navajo-nsn.gov'; 'Anu Jain'; Chen, Eugene; TSAI, YA-TING; Rios, Gerardo
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Where: Lone Butte Development Corporation, 1235 S. Akimel Lane, Chandler, AZ

Note: The GMT offset above does not reflect daylight saving time adjustments.

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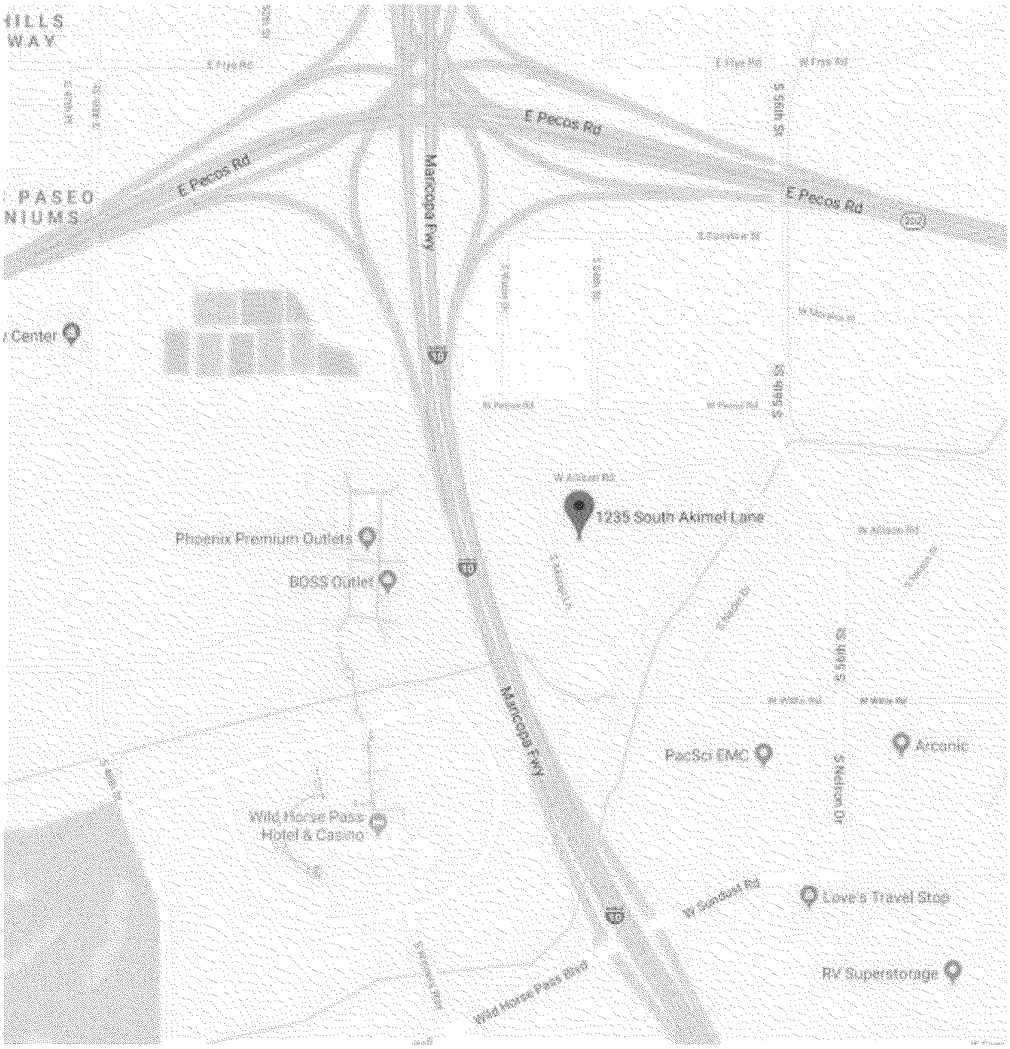
Agenda to follow.



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To: Jenn - NDEP[jcollier@ndep.nv.gov]; Lisa Kremer - NDEP[lkremer@ndep.nv.gov]
From: BECKHAM, LISA
Sent: Wed 2/28/2018 4:41:48 PM
Subject: Regulatory Updates - Feb 2018
Rulemaking Updates February 2018.pdf
02_26_2018_CARB_CoreyLtr.pdf

Listening session link: http://sanfrancisco.granicus.com/MediaPlayer.php?publish_id=ab614e09-1416-435b-9668-3d389748ccb9

Asbestos contact: Kingsley Adeduro

Adeduro.Kingsley@epa.gov

415-947-4182

Lisa Beckham

Environmental Engineer

Air Permits Office

EPA Region 9

(415) 972-3811

To: Steve Burr[Burr.Steven@azdeq.gov]
From: BECKHAM, LISA
Sent: Tue 3/20/2018 3:41:40 PM
Subject: FW: AZ Permit Managers Meeting
Rulemaking Updates February 2018.pdf
02_26_2018_CARB_CoreyLtr.pdf

The landfill document is at the end of the regulatory update doc.

From: BECKHAM, LISA
Sent: Wednesday, February 28, 2018 4:53 PM
To: Ryan Eberle <Ryan.eberle@gric.nsn.us>; kale.walch@pinalcountyaz.gov; 'Todd Martin - AQDX' <TMartin@mail.maricopa.gov>; 'Scott Treece - AQDX' <TreeceS@mail.maricopa.gov>; 'Richard Sumner - AQDX' <SumnerR@mail.maricopa.gov>; 'Balaji Vaidyanathan' <Vaidyanathan.Balaji@azdeq.gov>; 'Naveen D. Savarirayan' <Savarirayan.Naveen@azdeq.gov>; 'Scott Porter' <Scott.Porter@pima.gov>; Rupesh Patel <Rupesh.Patel@pima.gov>; 'tbbegay@navajo-nsn.gov' <tbbegay@navajo-nsn.gov>; 'rbisht@navajo-nsn.gov' <rbisht@navajo-nsn.gov>; 'Anu Jain' <Anu.Jain@pinalcountyaz.gov>; Chen, Eugene <Chen.Eugene@epa.gov>; TSAI, YA-TING <Tsai.Ya-Ting@epa.gov>; Rios, Gerardo <Rios.Gerardo@epa.gov>
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Lisa Beckham

Environmental Engineer

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Sent: Thursday, January 04, 2018 3:43 PM
To: Ryan Eberle; kale.walch@pinalcountyaz.gov; 'Todd Martin - AQDX'; 'Scott Treece - AQDX'; 'Richard Sumner - AQDX'; 'Balaji Vaidyanathan'; 'Naveen D. Savarirayan'; 'Scott Porter'; Rupesh Patel; 'tbbegay@navajo-nsn.gov'; 'rbisht@navajo-nsn.gov'; 'Anu Jain'; Chen, Eugene; TSAI, YA-TING; Rios, Gerardo
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Where: Lone Butte Development Corporation, 1235 S. Akimel Lane, Chandler, AZ

Note: The GMT offset above does not reflect daylight saving time adjustments.

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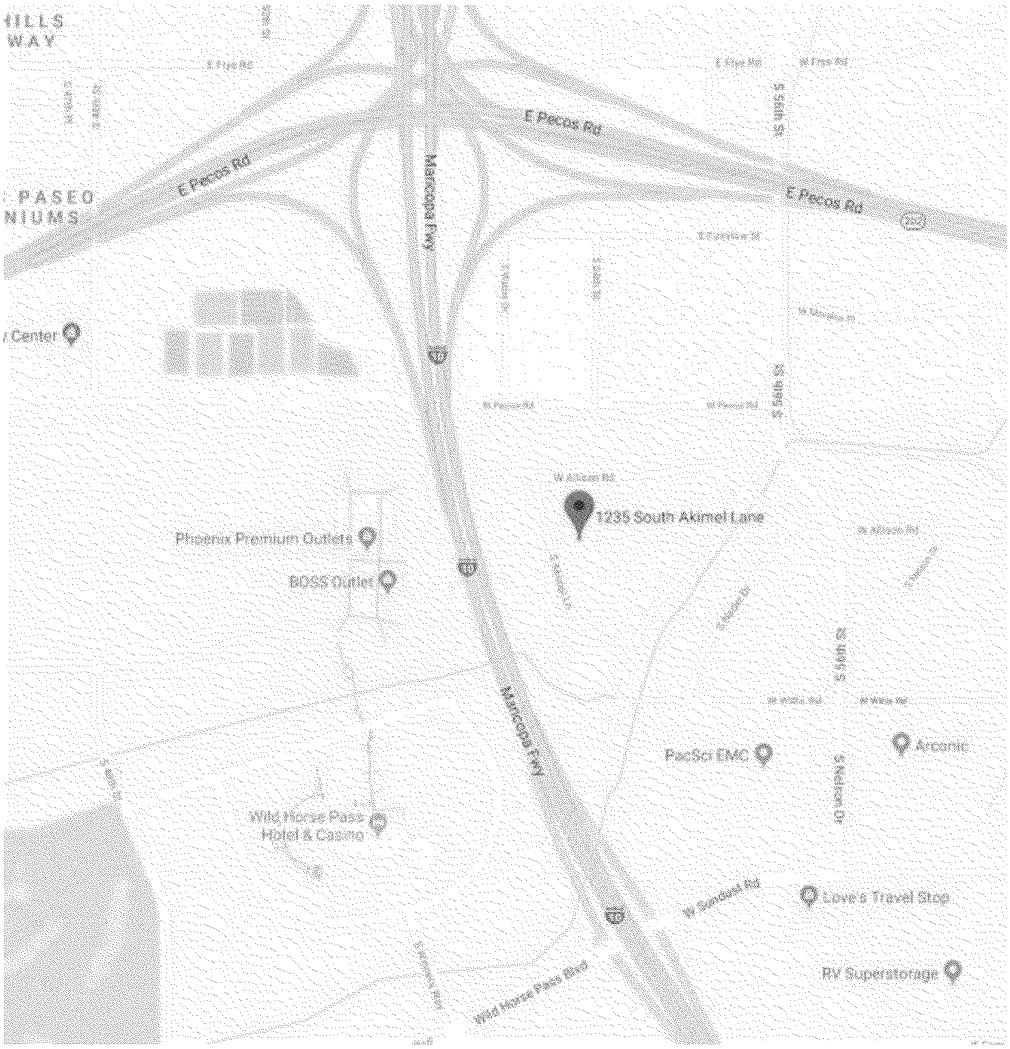
Agenda to follow.



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To: Sieffert, Margaret[Sieffert.Margaret@epa.gov]; Bird, Patrick[Bird.Patrick@epa.gov]
From: Gordon, Michael
Sent: Fri 5/12/2017 2:06:10 PM
Subject: FW: Delaware DNREC Public Hearing Notice on proposed 111(d) State Plan and Regulation for Municipal Solid Waste Landfills (MSWLs)
Proposed MSWL State Plan - 3-12AB.pdf
1120-30 Proposed 3-12.pdf

Margaret, Here is the DE state plan. If you search for closed landfills you can see how they handle it.

Mike Gordon

Environmental Engineer
Office of Permits and State Programs

Air Protection Division
EPA Region III

1650 Arch Street

Philadelphia, PA 19103

(215)-814-2039

Gordon.Mike@epa.gov

From: Snead, James (DNREC) [mailto:James.Snead@state.de.us]
Sent: Wednesday, March 22, 2017 9:47 AM
To: Fernandez, Cristina <Fernandez.Cristina@epa.gov>; Gordon, Michael <Gordon.Mike@epa.gov>; 'cecily.beall@dc.gov' <cecily.beall@dc.gov>; 'george.aburn@maryland.gov' <george.aburn@maryland.gov>; 'mgdowd@deq.virginia.gov' <mgdowd@deq.virginia.gov>; 'william.f.durham@wv.gov' <william.f.durham@wv.gov>; 'kramamurth@pa.gov' <kramamurth@pa.gov>; 'francis.steitz@dep.nj.gov' <francis.steitz@dep.nj.gov>; kassahun.sellassie@phila.gov; 'jgraham@achd.net' <jgraham@achd.net>
Cc: Mirzakhalili, Ali (DNREC) <Ali.Mirzakhalili@state.de.us>; Amirikian, Ronald A. (DNREC) <Ronald.Amirikian@state.de.us>; Gray, Valerie A. (DNREC) <Valerie.Gray@state.de.us>; Marconi, Angela D. (DNREC) <Angela.Marconi@state.de.us>
Subject: Delaware DNREC Public Hearing Notice on proposed 111(d) State Plan and Regulation for Municipal Solid Waste Landfills (MSWLs)

The Delaware Department of Natural Resources and Environmental Control (DNREC) will hold a public hearing concerning the State's proposed intention to incorporate the requirements in 40 CFR Part 60 Subpart XXX by reference as Section 30 of 7 DE Admin. Code 1120 (Section 30) and to satisfy the existing requirements of 40 CFR Part 60 Subpart Cf by expanding the applicability of Section 30 to include existing & new Municipal Solid Waste Landfills (MSWLs).

The proposed State Plan and Section 30, which are attached, will be published in the Delaware Register of Regulations on April 1st and can be accessed at http://regulations.delaware.gov/services/current_issue.shtml on and after that date.

A public hearing will be held on April 24, 2017 beginning at 6 p.m. at the Delaware DNREC office located at 100 W. Water Street, Suite 6A, Dover, DE 19904. After consideration of comments received, the State Plan and regulation will be finalized and submitted to the United States Environmental Protection Agency for approval.

Interested persons are invited to attend or submit comments. The hearing information was published in Delaware newspapers on March 12 and has been published on the following State websites.

- https://publicmeetings.delaware.gov/Meeting/52522

- http://www.dnrec.delaware.gov/Lists/Public%20Notices/DispForm.aspx?ID=3670&Source=http%3A%2

Interested parties may submit written comments to the Department, to the address below, up until the end of the comment period, which will extend through May 9, 2017, unless a longer comment period is designated by the hearing officer at the public hearing.

DNREC – Division of Air Quality

Subject: April 24 Public Hearing

715 Grantham Lane

New Castle, DE 19720

For more information or to submit comments, call or email.

Jim Snead

DNREC - Division of Air Quality – Planning

(302) 324-2083 jsnead@state.de.us

To: Bird, Patrick[Bird.Patrick@epa.gov]; McDonnell, Ida[McDonnell.Ida@epa.gov]; O'Toole, Megan[Megan.OToole@vermont.gov]
From: Elliott, Doug
Sent: Thur 4/13/2017 1:45:40 PM
Subject: FW: 2017-04-11 Landfill emission guidelines update
1120-30 Proposed 3-12.pdf
Proposed MSWL State Plan - 3-12AB.PDF
Landfill draft guidelines 5-253.xxx.docx

Patrick – I left you a voicemail this morning but realized maybe we did not firm up the call this morning. Anyway here is the latest draft I would like some discussion on if this approach seems viable. I am still working through it to ensure we have everything covered so you can still consider this a work in progress. I had to tweak (a)(2) to exclude closed landfills less than 2.5 million megagram (which is different from including landfills that are greater). Megan is going to revise the IBR citation to point to the CFR rather than the FR. I am going to start drafting up the "plan" similar to Delaware that would accompany the submittal of the final rule to EPA.

Doug

From: Elliott, Doug
Sent: Wednesday, April 12, 2017 3:00 PM
To: 'Bird, Patrick (Bird.Patrick@epa.gov)' <Bird.Patrick@epa.gov>; 'McDonnell.ida@Epa.gov' <McDonnell.ida@Epa.gov>; O'Toole, Megan <Megan.OToole@vermont.gov>
Subject: FW: 2017-04-11 Landfill emission guidelines update

I made a few more revisions we can discuss tomorrow. I was trying to true up dates that things are required under the guidelines verses the NSPS. The times specified for starting up a control system, title V applicability, submitting the design capacity report, submitting the NMOC reports(s), and the control system design plan did not work for the existing landfills in the guidelines rather than NSPS category. In the case of NEWSVT these were all triggered previously under WWW so don't need to be resubmitted. I will continue to look over the guidelines to see if I am missing anything else.

Doug

From: Elliott, Doug
Sent: Tuesday, April 11, 2017 4:17 PM

To: 'Bird, Patrick' <Bird.Patrick@epa.gov>
Cc: McDonnell, Ida <McDonnell.Ida@epa.gov>; O'Toole, Megan <Megan.OToole@vermont.gov>; Mathis, Tony <Tony.Mathis@vermont.gov>
Subject: 2017-04-11 Landfill emission guidelines update

Thanks Patrick. I am confirming that we have only the NEWSVT landfill in Coventry that will be subject to the emission guidelines. The Moretown landfill had closed in 2013 before it reached the 2.5 million megagram threshold. We have no other active landfills in the state and none other than NEWSVT that ever exceeded the 2.5 million megagram threshold. NEWSVT just this week filed a solid waste application to increase the design capacity of the landfill and will thus become subject to the NSPS once that expansion is approved and they commence construction on that expansion, estimated summer 2019. Thus our emission guidelines will not be in effect very long before the only subject facility falls under the NSPS, assuming things progress as planned.

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Doug

From: Bird, Patrick [mailto:Bird.Patrick@epa.gov]
Sent: Wednesday, March 29, 2017 1:08 PM
To: Elliott, Doug <Doug.Elliott@vermont.gov>
Cc: McDonnell, Ida <McDonnell.Ida@epa.gov>
Subject: EPA's Updated Landfill Regulations

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Pat

Patrick Bird

U.S. EPA - Region 1

5 Post Office Square, OEP05-2

Boston, MA 02109-3912

Phone: 617-918-1287

Fax: 617-918-0287

Email: bird.patrick@epa.gov

5-253.xxx Municipal Solid Waste Landfills

(a) Applicability. This subsection shall apply to each existing municipal solid waste landfill that meets the following conditions:

(1) The landfill accepted waste at any time since November 8, 1987;
(2) For landfills that closed prior to September 27, 2017, only those that had a design capacity greater than or equal to 2.5 million megagrams by mass and 2.5 million cubic meters by volume at time of closure;
(3) The landfill is not otherwise subject to Title 40 Code of Federal Regulations Part 60 Subpart XXX "Standards of Performance for Municipal Solid Waste Landfills that Commenced Construction, Reconstruction, or Modification After July 17,2014".

(b) Standards. The provisions Title 40 Code of Federal Regulations Part 60 Subpart XXX "Standards of Performance for Municipal Solid Waste Landfills that Commenced Construction, Reconstruction, or Modification After July 17,2014", as set forth in Vol. 81, No. 167, pp. 59368-59384, of the Federal Register, dated August 29, 2016, are hereby incorporated herein and adopted by reference, subject to the following changes:

(1) Section 60.760(a) regarding applicability shall be replaced with the following language: "The provisions of this subpart apply to each municipal solid waste landfill that commenced construction, reconstruction, or modification on or before July 17, 2014. Physical or operational changes made to an MSW landfill solely to comply with subparts Cc, Cf, or WWW of this part are not considered construction, reconstruction, or modification for the purposes of this section."
(2) Wherever the word "Administrator" appears it shall be replaced by the word "Secretary", with the exception of paragraphs 60.760(b) and 60.764(a)(5).
(3) Wherever the words "34 megagrams per year" appears it shall be replaced by the words "34 megagrams per year (50 megagrams per year for a landfill that closed prior to September 27, 2017)".
(4) Section 60.762(b)(2)(ii) regarding startup of the collection and controls system shall be replaced with the following language: "Collection system. Install and start up a collection and control system that captures the gas generated within the landfill as required by paragraphs (b)(2)(ii)(C) or (D) and (b)(2)(iii) of this section within 30 months after the following, unless previously required under Title 40 Code of Federal Regulations Part 60 Subpart WWW:"
(5) Section 60.762(c)(1) and (2) regarding Title V applicability shall be replaced with the following language: "(1) Ninety days after the effective date of this subsection."
(6) Section 60.767(a)(1)(i) and (ii) regarding the initial design capacity report shall be replaced with the following language: "(i) Ninety days after the effective date of this subsection unless previously submitted as required under Title 40 Code of Federal Regulations Part 60 Subpart WWW."
(7) Section 60.767(b)(1)(i)(A) and (B) regarding the initial NMOC emission rate report shall be replaced with the following language: "(A) Ninety days after the effective date of this subsection unless previously submitted as required under Title 40 Code of Federal Regulations Part 60 Subpart WWW."
(8) Section 60.767(c)(4) regarding the collection and control system

design plan shall be replaced with the following language: "Each owner or operator of an MSW landfill having a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters must submit a collection and control system design plan to the Administrator for approval, unless previously submitted as required under Title 40 Code of Federal Regulations Part 60 Subpart WWW, within 1 year of the first NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year, except as follows:"

(9) Section 60.767(k)(7)(i) and (ii) regarding the initial report for liquids additions shall be replaced with the following language: "(i) Ninety days after the effective date of this subsection.

(10) ..

To: Bird, Patrick[Bird.Patrick@epa.gov]; McDonnell, Ida[McDonnell.Ida@epa.gov]; O'Toole, Megan[Megan.OToole@vermont.gov]
From: Elliott, Doug
Sent: Wed 4/12/2017 7:00:35 PM
Subject: FW: 2017-04-11 Landfill emission guidelines update
1120-30 Proposed 3-12.pdf
Proposed MSWL State Plan - 3-12AB.PDF
Landfill draft guidelines 5-253.xxx.docx

I made a few more revisions we can discuss tomorrow. I was trying to true up dates that things are required under the guidelines verses the NSPS. The times specified for starting up a control system, title V applicability, submitting the design capacity report, submitting the NMOC reports(s), and the control system design plan did not work for the existing landfills in the guidelines rather than NSPS category. In the case of NEWSVT these were all triggered previously under WWW so don't need to be resubmitted. I will continue to look over the guidelines to see if I am missing anything else.

Doug

From: Elliott, Doug
Sent: Tuesday, April 11, 2017 4:17 PM
To: 'Bird, Patrick' <Bird.Patrick@epa.gov>
Cc: McDonnell, Ida <McDonnell.Ida@epa.gov>; O'Toole, Megan <Megan.OToole@vermont.gov>; Mathis, Tony <Tony.Mathis@vermont.gov>
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Environmental Consultants
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166 Valley Street, Bldg. 3L
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Fax 401 274-4330
www.scsengineers.com

SCS ENGINEERS

November 28, 2016
File No. 13200021.52

Ms. Inga Lermontov-Hoit
Senior Engineer
Rhode Island Resource Recovery Corporation
65 Shun Pike
Johnston, Rhode Island 02919

Subject: Applicability of 40 CFR Part 60, Subpart XXX
RIRRC Landfill
Johnston, Rhode Island

Dear Inga:

SCS Engineers (SCS) prepared this letter to summarize the applicability of 40 CFR Part 60, Subpart XXX to the Rhode Island Resource Recovery Corporation (RIRRC) Central Landfill (Landfill). This letter discusses the effective dates of the rule, the mechanisms that trigger applicability, and the submittals required to comply with the regulation. This letter also documents our interpretation of the rule and the applicability to the Landfill.

For clarity, this letter is organized into the following sections:

- Landfill Background
- NSPS Background
- Applicability of Subpart XXX
- Compliance Timeline
- NMOC Emission Rate

LANDFILL BACKGROUND

The Landfill is owned and operated by RIRRC and consists of six contiguous Phases (Phases I through VI), developed as a single mound-type landfill. Landfill Phases I through IV are closed and capped with a geomembrane cap. As of November 2016, approximately 30 acres Phase V have been capped. Additional capping of Phase V is currently ongoing and approximately 8 more acres is scheduled to be complete in the spring of 2017. Construction of Phase VI Area 1 was complete in December 2015 and the cell began acceptance of waste on December 21, 2015. Another 12 acres of baseliner, contiguous to Phase VI Area 1, is currently under construction and scheduled to start accepting waste in January of 2017. Active landfilling is currently occurring in the Phase VI landfill area.

The Landfill has an active landfill gas collection and control system installed in all areas of Phases I through V, which is operated in accordance with Standards of Performance for New

ED_001764_00002560

Stationary Sources (NSPS) and Guidelines for Control of Existing Sources: Municipal Solid Waste Landfills, 40 CFR Part 60, Subpart WWW and National Emission Standards for Hazardous Air Pollutants (NESHAPs), 40 CFR Part 63, Subpart AAAA. The LFG collection system was recently expanded into the Phase VI area of the landfill.

NSPS BACKGROUND

The U.S. Environmental Protection Agency (USEPA) published updated landfill gas (LFG) rules in the Federal Register on August 29, 2016. These rules include an Emission Guideline (EG) rule under Title 40 Code of Federal Regulations (40 CFR) Part 60, Subpart Cf and a New Source Performance Standards (NSPS) rule under 40 CFR Part 60, Subpart XXX. Both rules are finalized with this publication, and they will affect newly-defined NSPS facilities (i.e., "new" landfills that are new or modified (expanded in capacity) after July 17, 2014) and existing facilities (i.e., "existing" landfills that have not been expanded after July 17, 2014), respectively.

The new rules will ultimately replace the existing NSPS rule (40 CFR Part 60, Subpart WWW) and EG rules (40 CFR Part 60, Subpart Cc and state-equivalent rules) after a transition period. The new rules took effect on October 28, 2016. States and local air jurisdictions have nine months from publication to prepare their EG rules (i.e., May 30, 2017). EPA has an additional four months to approve or disapprove of the state/local EG rules. Thus, for existing facilities that do not satisfy the applicability under Subpart XXX, there will be a time lag before the EG rule becomes fully effective.

APPLICABILITY OF SUBPART XXX

The determining factor in whether a landfill is subject to the NSPS rule under Subpart XXX versus the EG rule is defined under 40 CFR 60.760(a), which states, "*The provisions of this subpart apply to each municipal solid waste landfill that commenced construction, reconstruction, or modification after July 17, 2014.*" The USEPA acknowledges that landfills are developed in phases over a long period of time and construction of subsequent cells at an existing landfill may or may not constitute the act of "commencing construction, reconstruction, or modification" that essentially defines the landfill as a "new" source of emissions. Based on discussions between USEPA and the solid waste industry, the key points of whether a facility has "commenced construction, reconstruction, or modification" after the applicability date of July 17, 2014 in a manner that defines the landfill as a "new" source and triggers applicability under Subpart XXX are as follows:

- If the landfill has permitted an initial design capacity, or an increase in design capacity that constitutes an expansion relative to the initial design capacity, but has not initiated construction or modification activities associated with that design capacity prior to July 17, 2014, and then commences construction or modification activities in a manner that enables that design capacity (or increase) to be achieved for the first time after July 17, 2014.

- A landfill can only commence construction of permitted design capacity (or each increase in design capacity) as a one-time event. Thus, construction of subsequent waste disposal units that continue to achieve the previously permitted design capacity are not considered to qualify as "commenced construction" of the facility's design capacity, if the initial construction of that design capacity was accomplished prior to the applicability date.

RIRRC previously established a permitted design capacity for Phases I through VI, before the July 2014 trigger date. The Initial Design Capacity Report for Phases I, II, III and IV was submitted on December 20, 1999. Phase V began receiving waste in 2004, according to the data used by SCS for the annual landfill gas model update.

Based on our review of the permits and construction dates, SCS has developed the following facts and timeline for Phase VI as follows:

1. Phase VI Permit Application, dated April 2010, lists the total design capacity for Phase VI as 26,200,000 cubic yards.

2. A permit modification application was submitted in November 2012 and modifies the total design capacity for Phase VI to 26,648,321 cubic yards.

3. The Phase VI Solid Waste permit approval was issued on February 11, 2011 and the Phase VI Air permit was issued on December 16, 2010.

4. Construction of the first cell of Phase VI commenced on September 2014 and was completed in December 2015.

5. Initial waste placement in Phase VI occurred on December 21, 2015.

Based on SCS' understanding of industry and EPA interpretations, and the intent of the new rule, as well as our review of the site's specific timelines for permits and cell construction, we believe the Landfill does conform to the applicability criteria of 60.760(a) and is therefore a "new" source subject to Subpart XXX.

COMPLIANCE TIMELINE

The Initial Design Capacity report must be submitted no later than November 28, 2016. The design capacity report must include a drawing of the landfill.

The NMOC Emission Rate Report must be submitted no later than November 28, 2016.

The collection and control system design plan must be be submitted within 1 year of the first NMOC emission rate report that exceeds 34 Mg/yr, or November 28, 2017.

NMOC EMISSION RATE

SCS prepared a preliminary NMOC Emission Rate calculation based on the annual waste tonnage history used for the Annual Model Update (see Attachment 1). Using LandGEM and the coefficients prescribed by the regulation, the NMOC emission rate in 2015 is 3,587 Mg/year, which is well over the regulatory threshold of 34 Mg/yr (see Attachment 2).

We revised the calculation as if a Tier 2 test was performed using a NMOC concentration of 130 ppmv as hexane from the December 2015 quarterly sampling event and an assumed flow of 8,000 cfm. The NMOC emission rate resulted in 55.7 Mg/year, which again is over the regulatory threshold of 34 Mg/year (see Attachment 3). We note that the NMOC concentration of 130 ppm as hexane is lower than what we typically see at Landfills. Also, the NMOC concentrations used for the NMOC/VOC monthly emission calculations are 663.9 ppmv for Phase I, II and III, 1,119 ppmv for Phase IV, and 422 ppm for Phase V (see Attachment 4). Therefore, it is unlikely that performing a Tier 2 test will lower the NMOC emission rate below the regulatory threshold.

Please call with any questions.

Sincerely,

Lisa K. Wilkinson, PE
Project Manager
SCS ENGINEERS

Gregory P. McCarron, PE
Project Director
SCS ENGINEERS

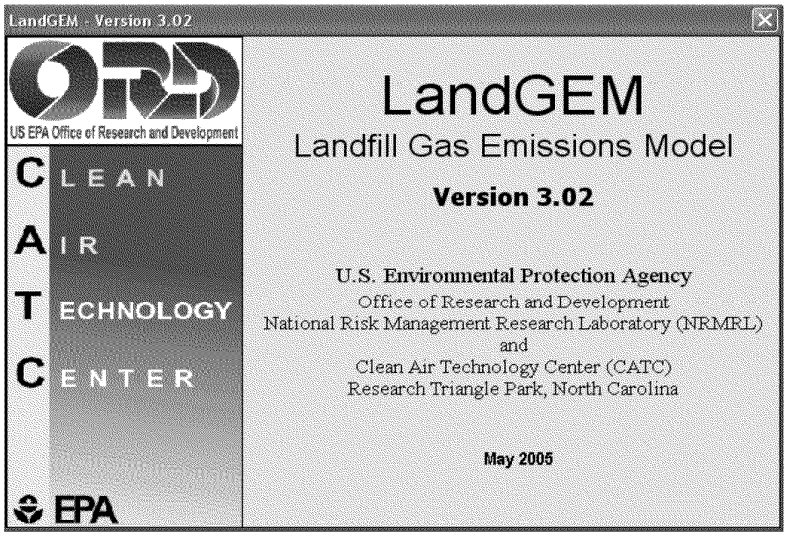
Attachment 1

Attachment 1. Waste Disposal by Phase
RIRRC Landfill, Johnston, Rhode Island

Phase I		Phase II-III	Phase IV	Phase V	Phase VI-VII	Total
Year	Tons	Tons	Tons	Tons	Tons	
1955	98,000					98,000
1956	98,000					98,000
1957	98,000					98,000
1958	98,000					98,000
1959	98,000					98,000
1960	98,000					98,000
1961	98,000					98,000
1962	98,000					98,000
1963	98,000					98,000
1964	98,000					98,000
1965	98,000					98,000
1966	98,000					98,000
1967	98,000					98,000
1968	98,000					98,000
1969	98,000					98,000
1970	98,000					98,000
1971	98,000					98,000
1972	98,000					98,000
1973	98,000					98,000
1974	98,000					98,000
1975	98,000					98,000
1976	98,000					98,000
1977	390,000					390,000
1978	390,000					390,000
1979	390,000					390,000
1980	390,000					390,000
1981	390,000					390,000
1982	521,532					521,532
1983	583,819					583,819
1984	722,093					722,093
1985	882,477					882,477
1986	1,123,010					1,123,010
1987	1,122,063					1,122,063
1988	1,093,384					1,093,384
1989	850,766					850,766
1990	659,325					659,325
1991	616,256					616,256
1992	663,070					663,070
1993		583,132				583,132
1994		679,322				679,322
1995		789,761				789,761
1996		776,459				776,459
1997		925,909				925,909
1998		1,148,690				1,148,690
1999		1,031,538				1,031,538
2000		715,702	250,000			965,702
2001		-	1,223,127			1,223,127
2002		250,740	943,261			1,194,001
2003		-	1,365,640			1,365,640
2004			993,807	386,481		1,380,288
2005			233,568	1,230,222		1,463,790
2006				1,362,104		1,362,104
2007				1,207,324		1,207,324
2008				947,600		947,600
2009				694,402		694,402
2010				937,790		937,790
2011				863,917		863,917
2012				734,272	-	734,272
2013				852,345	-	852,345
2014				894,563	-	894,563
2015				970,405		970,405
Site Total	**12,943,795**	**6,901,253**	**5,009,403**	**11,081,425**	-	**35,935,876**

P:\providence\SCS Engineers Providence\Projects\FY00-01\13200021.52\NSPS Subpart XXX-Reg Support\Attachments\Att 1 Waste disposal by phase-2016 Update

Attachment 2



Summary Report

Landfill Name or Identifier: RIRRC Landfill

Date: Monday, November 21, 2016

Description/Comments:

About LandGEM:

First-Order Decomposition Rate Equation:

$$Q_{CH_4} = \sum_{i=1}^{n} \sum_{j=0.1}^{1} k L_o \left(\frac{M_i}{10} \right) e^{-k t_{ij}}$$

Where,

Q_{CH4} = annual methane generation in the year of the calculation ($m^3/year$)
i = 1-year time increment
n = (year of the calculation) - (initial year of waste acceptance)
j = 0.1-year time increment
k = methane generation rate ($year^{-1}$)
L_o = potential methane generation capacity (m^3/Mg)

M_i = mass of waste accepted in the ith year (Mg)
t_{ij} = age of the jth section of waste mass M_i accepted in the ith year (*decimal years*, e.g., 3.2 years)

LandGEM is based on a first-order decomposition rate equation for quantifying emissions from the decomposition of landfilled wa ste in municipal solid waste (MSW) landfills. The software provides a relatively simple approach to estimating landfill gas emissions. Model defaults are based on empirical data from U.S. landfills. Field test data can also be used in place of model defaults when available. Fu rther guidance on EPA test methods, Clean Air Act (CAA) regulations, and other guidance regarding landfill gas emissions and control technology r equirements can be found at http://www.epa.gov/ttnatw01/landfill/landflpg.html.

LandGEM is considered a screening tool — the better the input data, the better the estimates. Often, there are limitations with the available data regarding waste quantity and composition, variation in design and operating practices over time, and changes occurring over tim e that impact the emissions potential. Changes to landfill operation, such as operating under wet conditions through leachate recirculation o r other liquid additions, will result in generating more gas at a faster rate. Defaults for estimating emissions for this type of operation ar e being developed to include in LandGEM along with defaults for convential landfills (no leachate or liquid additions) for developing emission inven tories and determining CAA applicability. Refer to the Web site identified above for future updates.

Input Review

LANDFILL CHARACTERISTICS

Landfill Open Year	**1955**	
Landfill Closure Year (with 80-year limit)	**2026**	
Actual Closure Year (without limit)	***2026***	
Have Model Calculate Closure Year?	**No**	
Waste Design Capacity		*short tons*

MODEL PARAMETERS

Methane Generation Rate, k	**0.050**	*year^{-1}*
Potential Methane Generation Capacity, L_o	**170**	*m^3/Mg*
NMOC Concentration	**4,000**	*ppmv as hexane*
Methane Content	**50**	*% by volume*

GASES / POLLUTANTS SELECTED

Gas / Pollutant #1:	**Total landfill gas**
Gas / Pollutant #2:	**Methane**
Gas / Pollutant #3:	**Carbon dioxide**
Gas / Pollutant #4:	**NMOC**

WASTE ACCEPTANCE RATES

Year	Waste Accepted		Waste-In-Place	
	(Mg/year)	*(short tons/year)*	*(Mg)*	*(short tons)*
1955	89,091	98,000	0	0
1956	89,091	98,000	89,091	98,000
1957	89,091	98,000	178,182	196,000
1958	89,091	98,000	267,273	294,000
1959	89,091	98,000	356,364	392,000
1960	89,091	98,000	445,455	490,000
1961	89,091	98,000	534,545	588,000
1962	89,091	98,000	623,636	686,000
1963	89,091	98,000	712,727	784,000
1964	89,091	98,000	801,818	882,000
1965	89,091	98,000	890,909	980,000
1966	89,091	98,000	980,000	1,078,000
1967	89,091	98,000	1,069,091	1,176,000
1968	89,091	98,000	1,158,182	1,274,000
1969	89,091	98,000	1,247,273	1,372,000
1970	89,091	98,000	1,336,364	1,470,000
1971	89,091	98,000	1,425,455	1,568,000
1972	89,091	98,000	1,514,545	1,666,000
1973	89,091	98,000	1,603,636	1,764,000
1974	89,091	98,000	1,692,727	1,862,000
1975	89,091	98,000	1,781,818	1,960,000
1976	89,091	98,000	1,870,909	2,058,000
1977	354,545	390,000	1,960,000	2,156,000
1978	354,545	390,000	2,314,545	2,546,000
1979	354,545	390,000	2,669,091	2,936,000
1980	354,545	390,000	3,023,636	3,326,000
1981	354,545	390,000	3,378,182	3,716,000
1982	474,120	521,532	3,732,727	4,106,000
1983	530,745	583,819	4,206,847	4,627,532
1984	656,448	722,093	4,737,592	5,211,351
1985	802,252	882,477	5,394,040	5,933,444
1986	1,020,918	1,123,010	6,196,292	6,815,921
1987	1,020,057	1,122,063	7,217,210	7,938,931
1988	993,986	1,093,384	8,237,267	9,060,994
1989	773,423	850,766	9,231,253	10,154,378
1990	599,386	659,325	10,004,676	11,005,144
1991	560,233	616,256	10,604,063	11,664,469
1992	602,791	663,070	11,164,295	12,280,725
1993	530,120	583,132	11,767,086	12,943,795
1994	617,565	679,322	12,297,206	13,526,927

WASTE ACCEPTANCE RATES (Continued)

Year	Waste Accepted		Waste-In-Place	
	(Mg/year)	*(short tons/year)*	*(Mg)*	*(short tons)*
1995	717,965	789,761	12,914,772	14,206,249
1996	705,872	776,459	13,632,736	14,996,010
1997	841,735	925,909	14,338,608	15,772,469
1998	1,044,264	1,148,690	15,180,344	16,698,378
1999	937,762	1,031,538	16,224,607	17,847,068
2000	877,911	965,702	17,162,369	18,878,606
2001	1,111,934	1,223,127	18,040,280	19,844,308
2002	1,085,455	1,194,001	19,152,214	21,067,435
2003	1,241,491	1,365,640	20,237,669	22,261,436
2004	1,254,807	1,380,288	21,479,160	23,627,076
2005	1,330,718	1,463,790	22,733,967	25,007,364
2006	1,238,277	1,362,104	24,064,685	26,471,154
2007	1,097,568	1,207,324	25,302,962	27,833,258
2008	861,454	947,600	26,400,530	29,040,583
2009	631,275	694,402	27,261,984	29,988,183
2010	852,537	937,790	27,893,259	30,682,585
2011	785,379	863,917	28,745,795	31,620,375
2012	667,520	734,272	29,531,174	32,484,292
2013	774,859	852,345	30,198,694	33,218,564
2014	813,239	894,563	30,973,553	34,070,908
2015	882,186	970,405	31,786,792	34,965,471
2016	882,186	970,405	32,668,978	35,935,876
2017	882,186	970,405	33,551,165	36,906,281
2018	882,186	970,405	34,433,351	37,876,686
2019	882,186	970,405	35,315,537	38,847,091
2020	882,186	970,405	36,197,724	39,817,496
2021	882,186	970,405	37,079,910	40,787,901
2022	882,186	970,405	37,962,096	41,758,306
2023	882,186	970,405	38,844,283	42,728,711
2024	882,186	970,405	39,726,469	43,699,116
2025	882,186	970,405	40,608,656	44,669,521
2026	0	0	41,490,842	45,639,926
2027	0	0	41,490,842	45,639,926
2028	0	0	41,490,842	45,639,926
2029	0	0	41,490,842	45,639,926
2030	0	0	41,490,842	45,639,926
2031	0	0	41,490,842	45,639,926
2032	0	0	41,490,842	45,639,926
2033	0	0	41,490,842	45,639,926
2034	0	0	41,490,842	45,639,926

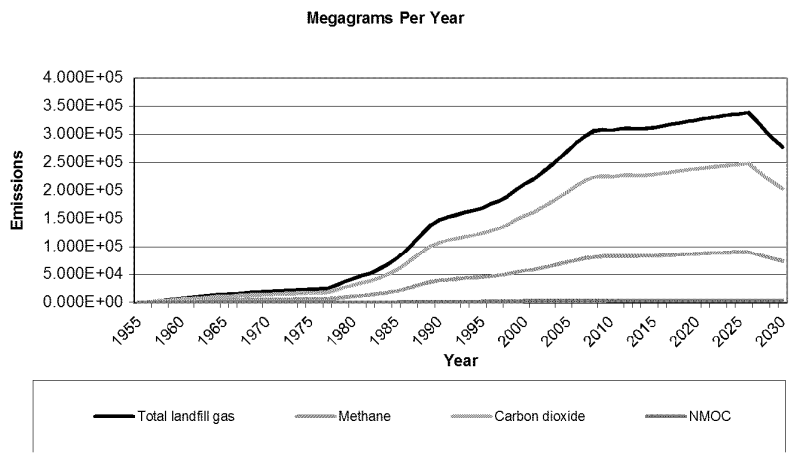
Pollutant Parameters

	Compound	Gas / Pollutant Default Parameters: Concentration (*ppmv*)	Molecular Weight	User-specified Pollutant Parameters: Concentration (*ppmv*)	Molecular Weight
Gases	Total landfill gas		0.00		
	Methane		16.04		
	Carbon dioxide		44.01		
	NMOC	4,000	86.18		
Pollutants	1,1,1-Trichloroethane (methyl chloroform) - HAP	0.48	133.41		
	1,1,2,2-Tetrachloroethane - HAP/VOC	1.1	167.85		
	1,1-Dichloroethane (ethylidene dichloride) - HAP/VOC	2.4	98.97		
	1,1-Dichloroethene (vinylidene chloride) - HAP/VOC	0.20	96.94		
	1,2-Dichloroethane (ethylene dichloride) - HAP/VOC	0.41	98.96		
	1,2-Dichloropropane (propylene dichloride) - HAP/VOC	0.18	112.99		
	2-Propanol (isopropyl alcohol) - VOC	50	60.11		
	Acetone	7.0	58.08		
	Acrylonitrile - HAP/VOC	6.3	53.06		
	Benzene - No or Unknown Co-disposal - HAP/VOC	1.9	78.11		
	Benzene - Co-disposal - HAP/VOC	11	78.11		
	Bromodichloromethane - VOC	3.1	163.83		
	Butane - VOC	5.0	58.12		
	Carbon disulfide - HAP/VOC	0.58	76.13		
	Carbon monoxide	140	28.01		
	Carbon tetrachloride - HAP/VOC	4.0E-03	153.84		
	Carbonyl sulfide - HAP/VOC	0.49	60.07		
	Chlorobenzene - HAP/VOC	0.25	112.56		
	Chlorodifluoromethane	1.3	86.47		
	Chloroethane (ethyl chloride) - HAP/VOC	1.3	64.52		
	Chloroform - HAP/VOC	0.03	119.39		
	Chloromethane - VOC	1.2	50.49		
	Dichlorobenzene - (HAP for para isomer/VOC)	0.21	147		
	Dichlorodifluoromethane	16	120.91		
	Dichlorofluoromethane - VOC	2.6	102.92		
	Dichloromethane (methylene chloride) - HAP	14	84.94		
	Dimethyl sulfide (methyl sulfide) - VOC	7.8	62.13		
	Ethane	890	30.07		
	Ethanol - VOC	27	46.08		

Pollutant Parameters (Continued)

	Gas / Pollutant Default Parameters:			User-specified Pollutant Parameters:	
	Compound	Concentration (*ppmv*)	Molecular Weight	Concentration (*ppmv*)	Molecular Weight
Pollutants	Ethyl mercaptan (ethanethiol) - VOC	2.3	62.13		
	Ethylbenzene - HAP/VOC	4.6	106.16		
	Ethylene dibromide - HAP/VOC	1.0E-03	187.88		
	Fluorotrichloromethane - VOC	0.76	137.38		
	Hexane - HAP/VOC	6.6	86.18		
	Hydrogen sulfide	36	34.08		
	Mercury (total) - HAP	2.9E-04	200.61		
	Methyl ethyl ketone - HAP/VOC	7.1	72.11		
	Methyl isobutyl ketone - HAP/VOC	1.9	100.16		
	Methyl mercaptan - VOC	2.5	48.11		
	Pentane - VOC	3.3	72.15		
	Perchloroethylene (tetrachloroethylene) - HAP	3.7	165.83		
	Propane - VOC	11	44.09		
	t-1,2-Dichloroethene - VOC	2.8	96.94		
	Toluene - No or Unknown Co-disposal - HAP/VOC	39	92.13		
	Toluene - Co-disposal - HAP/VOC	170	92.13		
	Trichloroethylene (trichloroethene) - HAP/VOC	2.8	131.40		
	Vinyl chloride - HAP/VOC	7.3	62.50		
	Xylenes - HAP/VOC	12	106.16		

Graphs


Megagrams Per Year
Emissions
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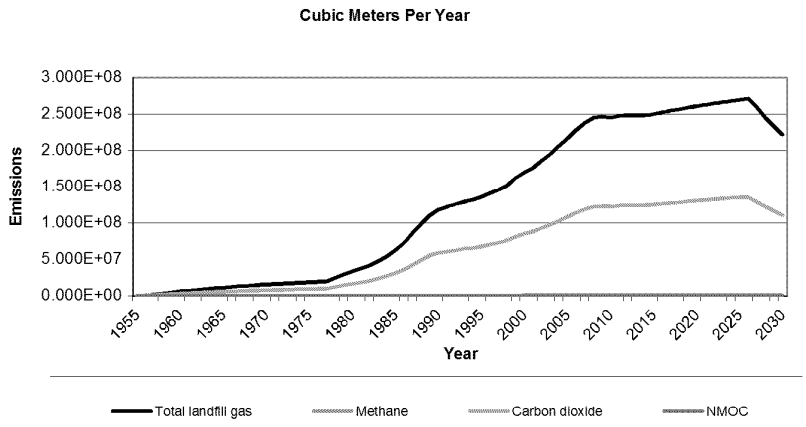
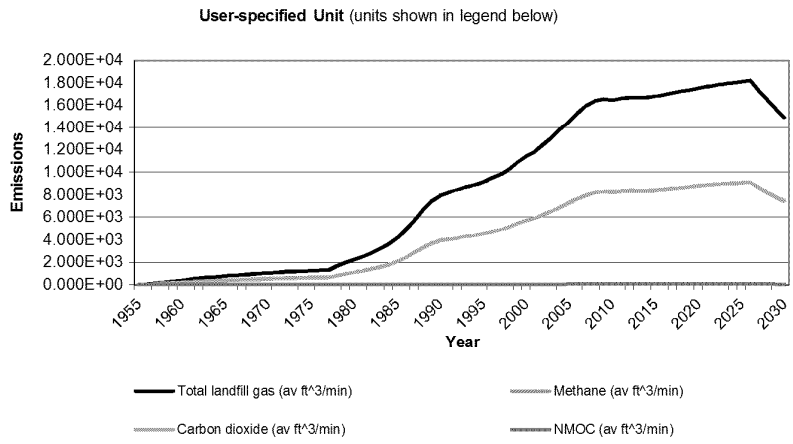
3.500E+05
3.000E+05
2.500E+05
2.000E+05
1.500E+05
1.000E+05
5.000E+04
0.000E+00
1955 1960 1965 1970 1975 1980 1985 1990 1995 2000 2005 2010 2015 2020 2025 2030
Year
Total landfill gas
Methane
Carbon dioxide
NMOC


Cubic Meters Per Year
Emissions
3.000E+08
2.500E+08
2.000E+08
1.500E+08
1.000E+08
5.000E+07
0.000E+00
1955 1960 1965 1970 1975 1980 1985 1990 1995 2000 2005 2010 2015 2020 2025 2030
Year
Total landfill gas
Methane
Carbon dioxide
NMOC


User-specified Unit (units shown in legend below)
Emissions
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1.800E+04
1.600E+04
1.400E+04
1.200E+04
1.000E+04
8.000E+03
6.000E+03
4.000E+03
2.000E+03
0.000E+00
1955 1960 1965 1970 1975 1980 1985 1990 1995 2000 2005 2010 2015 2020 2025 2030
Year
Total landfill gas (av ft^3/min)
Methane (av ft^3/min)
Carbon dioxide (av ft^3/min)
NMOC (av ft^3/min)

Results

Year	Total landfill gas			Methane		
	(Mg/year)	*(m^3/year)*	*(av ft^3/min)*	*(Mg/year)*	*(m^3/year)*	*(av ft^3/min)*
1955	0	0	0	0	0	0
1956	1.850E+03	1.481E+06	9.951E+01	4.940E+02	7.405E+05	4.975E+01
1957	3.609E+03	2.890E+06	1.942E+02	9.640E+02	1.445E+06	9.708E+01
1958	5.282E+03	4.230E+06	2.842E+02	1.411E+03	2.115E+06	1.421E+02
1959	6.874E+03	5.505E+06	3.698E+02	1.836E+03	2.752E+06	1.849E+02
1960	8.388E+03	6.717E+06	4.513E+02	2.241E+03	3.359E+06	2.257E+02
1961	9.829E+03	7.870E+06	5.288E+02	2.625E+03	3.935E+06	2.644E+02
1962	1.120E+04	8.968E+06	6.025E+02	2.991E+03	4.484E+06	3.013E+02
1963	1.250E+04	1.001E+07	6.727E+02	3.340E+03	5.006E+06	3.363E+02
1964	1.374E+04	1.100E+07	7.394E+02	3.671E+03	5.502E+06	3.697E+02
1965	1.492E+04	1.195E+07	8.028E+02	3.986E+03	5.974E+06	4.014E+02
1966	1.604E+04	1.285E+07	8.632E+02	4.285E+03	6.423E+06	4.316E+02
1967	1.711E+04	1.370E+07	9.206E+02	4.570E+03	6.851E+06	4.603E+02
1968	1.813E+04	1.451E+07	9.752E+02	4.841E+03	7.257E+06	4.876E+02
1969	1.909E+04	1.529E+07	1.027E+03	5.099E+03	7.644E+06	5.136E+02
1970	2.001E+04	1.602E+07	1.077E+03	5.345E+03	8.011E+06	5.383E+02
1971	2.088E+04	1.672E+07	1.124E+03	5.578E+03	8.361E+06	5.618E+02
1972	2.171E+04	1.739E+07	1.168E+03	5.800E+03	8.694E+06	5.841E+02
1973	2.250E+04	1.802E+07	1.211E+03	6.011E+03	9.010E+06	6.054E+02
1974	2.326E+04	1.862E+07	1.251E+03	6.212E+03	9.311E+06	6.256E+02
1975	2.397E+04	1.920E+07	1.290E+03	6.403E+03	9.598E+06	6.449E+02
1976	2.465E+04	1.974E+07	1.326E+03	6.585E+03	9.870E+06	6.632E+02
1977	2.530E+04	2.026E+07	1.361E+03	6.758E+03	1.013E+07	6.806E+02
1978	3.143E+04	2.516E+07	1.691E+03	8.394E+03	1.258E+07	8.454E+02
1979	3.725E+04	2.983E+07	2.004E+03	9.951E+03	1.492E+07	1.002E+03
1980	4.280E+04	3.427E+07	2.303E+03	1.143E+04	1.713E+07	1.151E+03
1981	4.807E+04	3.849E+07	2.586E+03	1.284E+04	1.925E+07	1.293E+03
1982	5.309E+04	4.251E+07	2.856E+03	1.418E+04	2.125E+07	1.428E+03
1983	6.034E+04	4.832E+07	3.246E+03	1.612E+04	2.416E+07	1.623E+03
1984	6.841E+04	5.478E+07	3.681E+03	1.827E+04	2.739E+07	1.840E+03
1985	7.871E+04	6.302E+07	4.235E+03	2.102E+04	3.151E+07	2.117E+03
1986	9.152E+04	7.329E+07	4.924E+03	2.445E+04	3.664E+07	2.462E+03
1987	1.083E+05	8.668E+07	5.824E+03	2.892E+04	4.334E+07	2.912E+03
1988	1.241E+05	9.941E+07	6.680E+03	3.316E+04	4.971E+07	3.340E+03
1989	1.387E+05	1.111E+08	7.464E+03	3.706E+04	5.554E+07	3.732E+03
1990	1.480E+05	1.185E+08	7.964E+03	3.954E+04	5.926E+07	3.982E+03
1991	1.532E+05	1.227E+08	8.245E+03	4.093E+04	6.136E+07	4.122E+03
1992	1.574E+05	1.260E+08	8.469E+03	4.204E+04	6.302E+07	4.234E+03
1993	1.622E+05	1.299E+08	8.729E+03	4.334E+04	6.496E+07	4.364E+03
1994	1.653E+05	1.324E+08	8.895E+03	4.416E+04	6.619E+07	4.448E+03
1995	1.701E+05	1.362E+08	9.151E+03	4.543E+04	6.810E+07	4.576E+03
1996	1.767E+05	1.415E+08	9.507E+03	4.720E+04	7.075E+07	4.753E+03
1997	1.827E+05	1.463E+08	9.832E+03	4.881E+04	7.316E+07	4.916E+03
1998	1.913E+05	1.532E+08	1.029E+04	5.110E+04	7.659E+07	5.146E+03
1999	2.036E+05	1.631E+08	1.096E+04	5.440E+04	8.153E+07	5.478E+03
2000	2.132E+05	1.707E+08	1.147E+04	5.694E+04	8.535E+07	5.735E+03
2001	2.210E+05	1.770E+08	1.189E+04	5.903E+04	8.849E+07	5.945E+03
2002	2.333E+05	1.868E+08	1.255E+04	6.232E+04	9.341E+07	6.276E+03
2003	2.445E+05	1.958E+08	1.315E+04	6.530E+04	9.788E+07	6.577E+03
2004	2.583E+05	2.068E+08	1.390E+04	6.900E+04	1.034E+08	6.949E+03

Results (Continued)

Year	Total landfill gas			Methane		
	(Mg/year)	*(m^3/year)*	*(av ft^3/min)*	*(Mg/year)*	*(m^3/year)*	*(av ft^3/min)*
2005	2.718E+05	2.176E+08	1.462E+04	7.259E+04	1.088E+08	7.311E+03
2006	2.861E+05	2.291E+08	1.540E+04	7.643E+04	1.146E+08	7.698E+03
2007	2.979E+05	2.385E+08	1.603E+04	7.957E+04	1.193E+08	8.014E+03
2008	3.061E+05	2.451E+08	1.647E+04	8.178E+04	1.226E+08	8.236E+03
2009	3.091E+05	2.475E+08	1.663E+04	8.256E+04	1.238E+08	8.315E+03
2010	3.071E+05	2.459E+08	1.652E+04	8.204E+04	1.230E+08	8.262E+03
2011	3.099E+05	2.481E+08	1.667E+04	8.276E+04	1.241E+08	8.335E+03
2012	3.110E+05	2.491E+08	1.673E+04	8.308E+04	1.245E+08	8.367E+03
2013	3.097E+05	2.480E+08	1.666E+04	8.273E+04	1.240E+08	8.332E+03
2014	3.107E+05	2.488E+08	1.672E+04	8.299E+04	1.244E+08	8.359E+03
2015	3.124E+05	2.502E+08	1.681E+04	8.346E+04	1.251E+08	8.405E+03
2016	3.155E+05	2.527E+08	1.698E+04	8.428E+04	1.263E+08	8.488E+03
2017	3.184E+05	2.550E+08	1.713E+04	8.506E+04	1.275E+08	8.567E+03
2018	3.212E+05	2.572E+08	1.728E+04	8.580E+04	1.286E+08	8.641E+03
2019	3.239E+05	2.593E+08	1.743E+04	8.651E+04	1.297E+08	8.713E+03
2020	3.264E+05	2.614E+08	1.756E+04	8.718E+04	1.307E+08	8.780E+03
2021	3.288E+05	2.633E+08	1.769E+04	8.782E+04	1.316E+08	8.845E+03
2022	3.311E+05	2.651E+08	1.781E+04	8.843E+04	1.326E+08	8.906E+03
2023	3.332E+05	2.668E+08	1.793E+04	8.901E+04	1.334E+08	8.964E+03
2024	3.353E+05	2.685E+08	1.804E+04	8.956E+04	1.342E+08	9.020E+03
2025	3.373E+05	2.701E+08	1.815E+04	9.009E+04	1.350E+08	9.073E+03
2026	3.391E+05	2.716E+08	1.825E+04	9.058E+04	1.358E+08	9.123E+03
2027	3.226E+05	2.583E+08	1.736E+04	8.617E+04	1.292E+08	8.678E+03
2028	3.069E+05	2.457E+08	1.651E+04	8.196E+04	1.229E+08	8.255E+03
2029	2.919E+05	2.337E+08	1.570E+04	7.797E+04	1.169E+08	7.852E+03
2030	2.777E+05	2.223E+08	1.494E+04	7.416E+04	1.112E+08	7.469E+03
2031	2.641E+05	2.115E+08	1.421E+04	7.055E+04	1.057E+08	7.105E+03
2032	2.512E+05	2.012E+08	1.352E+04	6.711E+04	1.006E+08	6.758E+03
2033	2.390E+05	1.914E+08	1.286E+04	6.383E+04	9.568E+07	6.429E+03
2034	2.273E+05	1.820E+08	1.223E+04	6.072E+04	9.101E+07	6.115E+03
2035	2.162E+05	1.732E+08	1.163E+04	5.776E+04	8.658E+07	5.817E+03
2036	2.057E+05	1.647E+08	1.107E+04	5.494E+04	8.235E+07	5.533E+03
2037	1.957E+05	1.567E+08	1.053E+04	5.226E+04	7.834E+07	5.263E+03
2038	1.861E+05	1.490E+08	1.001E+04	4.971E+04	7.452E+07	5.007E+03
2039	1.770E+05	1.418E+08	9.525E+03	4.729E+04	7.088E+07	4.763E+03
2040	1.684E+05	1.349E+08	9.061E+03	4.498E+04	6.743E+07	4.530E+03
2041	1.602E+05	1.283E+08	8.619E+03	4.279E+04	6.414E+07	4.309E+03
2042	1.524E+05	1.220E+08	8.198E+03	4.070E+04	6.101E+07	4.099E+03
2043	1.449E+05	1.161E+08	7.798E+03	3.872E+04	5.803E+07	3.899E+03
2044	1.379E+05	1.104E+08	7.418E+03	3.683E+04	5.520E+07	3.709E+03
2045	1.312E+05	1.050E+08	7.056E+03	3.503E+04	5.251E+07	3.528E+03
2046	1.248E+05	9.990E+07	6.712E+03	3.332E+04	4.995E+07	3.356E+03
2047	1.187E+05	9.503E+07	6.385E+03	3.170E+04	4.751E+07	3.192E+03
2048	1.129E+05	9.039E+07	6.073E+03	3.015E+04	4.520E+07	3.037E+03
2049	1.074E+05	8.598E+07	5.777E+03	2.868E+04	4.299E+07	2.889E+03
2050	1.021E+05	8.179E+07	5.496E+03	2.728E+04	4.090E+07	2.748E+03
2051	9.716E+04	7.780E+07	5.227E+03	2.595E+04	3.890E+07	2.614E+03
2052	9.242E+04	7.401E+07	4.973E+03	2.469E+04	3.700E+07	2.486E+03
2053	8.791E+04	7.040E+07	4.730E+03	2.348E+04	3.520E+07	2.365E+03
2054	8.363E+04	6.696E+07	4.499E+03	2.234E+04	3.348E+07	2.250E+03
2055	7.955E+04	6.370E+07	4.280E+03	2.125E+04	3.185E+07	2.140E+03

Results (Continued)

Year	Total landfill gas			Methane		
	(Mg/year)	*(m^3/year)*	*(av ft^3/min)*	*(Mg/year)*	*(m^3/year)*	*(av ft^3/min)*
2056	7.567E+04	6.059E+07	4.071E+03	2.021E+04	3.030E+07	2.036E+03
2057	7.198E+04	5.764E+07	3.873E+03	1.923E+04	2.882E+07	1.936E+03
2058	6.847E+04	5.483E+07	3.684E+03	1.829E+04	2.741E+07	1.842E+03
2059	6.513E+04	5.215E+07	3.504E+03	1.740E+04	2.608E+07	1.752E+03
2060	6.195E+04	4.961E+07	3.333E+03	1.655E+04	2.480E+07	1.667E+03
2061	5.893E+04	4.719E+07	3.171E+03	1.574E+04	2.359E+07	1.585E+03
2062	5.606E+04	4.489E+07	3.016E+03	1.497E+04	2.244E+07	1.508E+03
2063	5.332E+04	4.270E+07	2.869E+03	1.424E+04	2.135E+07	1.434E+03
2064	5.072E+04	4.062E+07	2.729E+03	1.355E+04	2.031E+07	1.364E+03
2065	4.825E+04	3.864E+07	2.596E+03	1.289E+04	1.932E+07	1.298E+03
2066	4.590E+04	3.675E+07	2.469E+03	1.226E+04	1.838E+07	1.235E+03
2067	4.366E+04	3.496E+07	2.349E+03	1.166E+04	1.748E+07	1.174E+03
2068	4.153E+04	3.325E+07	2.234E+03	1.109E+04	1.663E+07	1.117E+03
2069	3.950E+04	3.163E+07	2.125E+03	1.055E+04	1.582E+07	1.063E+03
2070	3.758E+04	3.009E+07	2.022E+03	1.004E+04	1.504E+07	1.011E+03
2071	3.574E+04	2.862E+07	1.923E+03	9.547E+03	1.431E+07	9.615E+02
2072	3.400E+04	2.723E+07	1.829E+03	9.082E+03	1.361E+07	9.146E+02
2073	3.234E+04	2.590E+07	1.740E+03	8.639E+03	1.295E+07	8.700E+02
2074	3.076E+04	2.463E+07	1.655E+03	8.218E+03	1.232E+07	8.276E+02
2075	2.926E+04	2.343E+07	1.574E+03	7.817E+03	1.172E+07	7.872E+02
2076	2.784E+04	2.229E+07	1.498E+03	7.436E+03	1.115E+07	7.488E+02
2077	2.648E+04	2.120E+07	1.425E+03	7.073E+03	1.060E+07	7.123E+02
2078	2.519E+04	2.017E+07	1.355E+03	6.728E+03	1.008E+07	6.776E+02
2079	2.396E+04	1.919E+07	1.289E+03	6.400E+03	9.593E+06	6.445E+02
2080	2.279E+04	1.825E+07	1.226E+03	6.088E+03	9.125E+06	6.131E+02
2081	2.168E+04	1.736E+07	1.166E+03	5.791E+03	8.680E+06	5.832E+02
2082	2.062E+04	1.651E+07	1.110E+03	5.508E+03	8.257E+06	5.548E+02
2083	1.962E+04	1.571E+07	1.055E+03	5.240E+03	7.854E+06	5.277E+02
2084	1.866E+04	1.494E+07	1.004E+03	4.984E+03	7.471E+06	5.020E+02
2085	1.775E+04	1.421E+07	9.550E+02	4.741E+03	7.107E+06	4.775E+02
2086	1.688E+04	1.352E+07	9.084E+02	4.510E+03	6.760E+06	4.542E+02
2087	1.606E+04	1.286E+07	8.641E+02	4.290E+03	6.430E+06	4.320E+02
2088	1.528E+04	1.223E+07	8.220E+02	4.081E+03	6.117E+06	4.110E+02
2089	1.453E+04	1.164E+07	7.819E+02	3.882E+03	5.818E+06	3.909E+02
2090	1.382E+04	1.107E+07	7.437E+02	3.692E+03	5.535E+06	3.719E+02
2091	1.315E+04	1.053E+07	7.075E+02	3.512E+03	5.265E+06	3.537E+02
2092	1.251E+04	1.002E+07	6.730E+02	3.341E+03	5.008E+06	3.365E+02
2093	1.190E+04	9.527E+06	6.401E+02	3.178E+03	4.764E+06	3.201E+02
2094	1.132E+04	9.063E+06	6.089E+02	3.023E+03	4.531E+06	3.045E+02
2095	1.077E+04	8.621E+06	5.792E+02	2.876E+03	4.310E+06	2.896E+02

Results (Continued)

Year	Carbon dioxide			NMOC		
	(Mg/year)	*(m^3/year)*	*(av ft^3/min)*	*(Mg/year)*	*(m^3/year)*	*(av ft^3/min)*
1955	0	0	0	0	0	0
1956	1.355E+03	7.405E+05	4.975E+01	2.123E+01	5.924E+03	3.980E-01
1957	2.645E+03	1.445E+06	9.708E+01	4.143E+01	1.156E+04	7.767E-01
1958	3.871E+03	2.115E+06	1.421E+02	6.065E+01	1.692E+04	1.137E+00
1959	5.038E+03	2.752E+06	1.849E+02	7.892E+01	2.202E+04	1.479E+00
1960	6.148E+03	3.359E+06	2.257E+02	9.631E+01	2.687E+04	1.805E+00
1961	7.203E+03	3.935E+06	2.644E+02	1.128E+02	3.148E+04	2.115E+00
1962	8.208E+03	4.484E+06	3.013E+02	1.286E+02	3.587E+04	2.410E+00
1963	9.163E+03	5.006E+06	3.363E+02	1.435E+02	4.005E+04	2.691E+00
1964	1.007E+04	5.502E+06	3.697E+02	1.578E+02	4.402E+04	2.957E+00
1965	1.094E+04	5.974E+06	4.014E+02	1.713E+02	4.779E+04	3.211E+00
1966	1.176E+04	6.423E+06	4.316E+02	1.842E+02	5.139E+04	3.453E+00
1967	1.254E+04	6.851E+06	4.603E+02	1.964E+02	5.480E+04	3.682E+00
1968	1.328E+04	7.257E+06	4.876E+02	2.081E+02	5.806E+04	3.901E+00
1969	1.399E+04	7.644E+06	5.136E+02	2.192E+02	6.115E+04	4.109E+00
1970	1.466E+04	8.011E+06	5.383E+02	2.297E+02	6.409E+04	4.306E+00
1971	1.530E+04	8.361E+06	5.618E+02	2.398E+02	6.689E+04	4.494E+00
1972	1.591E+04	8.694E+06	5.841E+02	2.493E+02	6.955E+04	4.673E+00
1973	1.649E+04	9.010E+06	6.054E+02	2.584E+02	7.208E+04	4.843E+00
1974	1.704E+04	9.311E+06	6.256E+02	2.670E+02	7.449E+04	5.005E+00
1975	1.757E+04	9.598E+06	6.449E+02	2.752E+02	7.678E+04	5.159E+00
1976	1.807E+04	9.870E+06	6.632E+02	2.830E+02	7.896E+04	5.305E+00
1977	1.854E+04	1.013E+07	6.806E+02	2.905E+02	8.103E+04	5.445E+00
1978	2.303E+04	1.258E+07	8.454E+02	3.608E+02	1.007E+05	6.763E+00
1979	2.730E+04	1.492E+07	1.002E+03	4.277E+02	1.193E+05	8.017E+00
1980	3.137E+04	1.713E+07	1.151E+03	4.914E+02	1.371E+05	9.210E+00
1981	3.523E+04	1.925E+07	1.293E+03	5.519E+02	1.540E+05	1.035E+01
1982	3.891E+04	2.125E+07	1.428E+03	6.095E+02	1.700E+05	1.142E+01
1983	4.422E+04	2.416E+07	1.623E+03	6.928E+02	1.933E+05	1.299E+01
1984	5.014E+04	2.739E+07	1.840E+03	7.855E+02	2.191E+05	1.472E+01
1985	5.768E+04	3.151E+07	2.117E+03	9.036E+02	2.521E+05	1.694E+01
1986	6.708E+04	3.664E+07	2.462E+03	1.051E+03	2.931E+05	1.970E+01
1987	7.934E+04	4.334E+07	2.912E+03	1.243E+03	3.467E+05	2.330E+01
1988	9.099E+04	4.971E+07	3.340E+03	1.425E+03	3.977E+05	2.672E+01
1989	1.017E+05	5.554E+07	3.732E+03	1.593E+03	4.444E+05	2.986E+01
1990	1.085E+05	5.926E+07	3.982E+03	1.699E+03	4.741E+05	3.186E+01
1991	1.123E+05	6.136E+07	4.122E+03	1.759E+03	4.908E+05	3.298E+01
1992	1.154E+05	6.302E+07	4.234E+03	1.807E+03	5.042E+05	3.387E+01
1993	1.189E+05	6.496E+07	4.364E+03	1.863E+03	5.196E+05	3.492E+01
1994	1.212E+05	6.619E+07	4.448E+03	1.898E+03	5.296E+05	3.558E+01
1995	1.247E+05	6.810E+07	4.576E+03	1.953E+03	5.448E+05	3.660E+01
1996	1.295E+05	7.075E+07	4.753E+03	2.029E+03	5.660E+05	3.803E+01
1997	1.339E+05	7.316E+07	4.916E+03	2.098E+03	5.853E+05	3.933E+01
1998	1.402E+05	7.659E+07	5.146E+03	2.196E+03	6.127E+05	4.117E+01
1999	1.492E+05	8.153E+07	5.478E+03	2.338E+03	6.523E+05	4.383E+01
2000	1.562E+05	8.535E+07	5.735E+03	2.448E+03	6.828E+05	4.588E+01
2001	1.620E+05	8.849E+07	5.945E+03	2.537E+03	7.079E+05	4.756E+01
2002	1.710E+05	9.341E+07	6.276E+03	2.679E+03	7.473E+05	5.021E+01
2003	1.792E+05	9.788E+07	6.577E+03	2.807E+03	7.830E+05	5.261E+01
2004	1.893E+05	1.034E+08	6.949E+03	2.966E+03	8.274E+05	5.559E+01

Results (Continued)

Year	Carbon dioxide			NMOC		
	(Mg/year)	*(m^3/year)*	*(av ft^3/min)*	*(Mg/year)*	*(m^3/year)*	*(av ft^3/min)*
2005	1.992E+05	1.088E+08	7.311E+03	3.120E+03	8.705E+05	5.849E+01
2006	2.097E+05	1.146E+08	7.698E+03	3.285E+03	9.165E+05	6.158E+01
2007	2.183E+05	1.193E+08	8.014E+03	3.420E+03	9.542E+05	6.411E+01
2008	2.244E+05	1.226E+08	8.236E+03	3.515E+03	9.806E+05	6.589E+01
2009	2.265E+05	1.238E+08	8.315E+03	3.549E+03	9.901E+05	6.652E+01
2010	2.251E+05	1.230E+08	8.262E+03	3.526E+03	9.837E+05	6.610E+01
2011	2.271E+05	1.241E+08	8.335E+03	3.557E+03	9.925E+05	6.668E+01
2012	2.280E+05	1.245E+08	8.367E+03	3.571E+03	9.963E+05	6.694E+01
2013	2.270E+05	1.240E+08	8.332E+03	3.556E+03	9.921E+05	6.666E+01
2014	2.277E+05	1.244E+08	8.359E+03	3.567E+03	9.952E+05	6.687E+01
2015	2.290E+05	1.251E+08	8.405E+03	3.587E+03	1.001E+06	6.724E+01
2016	2.312E+05	1.263E+08	8.488E+03	3.622E+03	1.011E+06	6.790E+01
2017	2.334E+05	1.275E+08	8.567E+03	3.656E+03	1.020E+06	6.853E+01
2018	2.354E+05	1.286E+08	8.641E+03	3.688E+03	1.029E+06	6.913E+01
2019	2.374E+05	1.297E+08	8.713E+03	3.718E+03	1.037E+06	6.970E+01
2020	2.392E+05	1.307E+08	8.780E+03	3.747E+03	1.045E+06	7.024E+01
2021	2.410E+05	1.316E+08	8.845E+03	3.775E+03	1.053E+06	7.076E+01
2022	2.426E+05	1.326E+08	8.906E+03	3.801E+03	1.060E+06	7.125E+01
2023	2.442E+05	1.334E+08	8.964E+03	3.826E+03	1.067E+06	7.172E+01
2024	2.457E+05	1.342E+08	9.020E+03	3.850E+03	1.074E+06	7.216E+01
2025	2.472E+05	1.350E+08	9.073E+03	3.872E+03	1.080E+06	7.258E+01
2026	2.485E+05	1.358E+08	9.123E+03	3.894E+03	1.086E+06	7.298E+01
2027	2.364E+05	1.292E+08	8.678E+03	3.704E+03	1.033E+06	6.942E+01
2028	2.249E+05	1.229E+08	8.255E+03	3.523E+03	9.829E+05	6.604E+01
2029	2.139E+05	1.169E+08	7.852E+03	3.351E+03	9.349E+05	6.282E+01
2030	2.035E+05	1.112E+08	7.469E+03	3.188E+03	8.893E+05	5.975E+01
2031	1.936E+05	1.057E+08	7.105E+03	3.032E+03	8.459E+05	5.684E+01
2032	1.841E+05	1.006E+08	6.758E+03	2.884E+03	8.047E+05	5.407E+01
2033	1.751E+05	9.568E+07	6.429E+03	2.744E+03	7.654E+05	5.143E+01
2034	1.666E+05	9.101E+07	6.115E+03	2.610E+03	7.281E+05	4.892E+01
2035	1.585E+05	8.658E+07	5.817E+03	2.483E+03	6.926E+05	4.654E+01
2036	1.507E+05	8.235E+07	5.533E+03	2.362E+03	6.588E+05	4.427E+01
2037	1.434E+05	7.834E+07	5.263E+03	2.246E+03	6.267E+05	4.211E+01
2038	1.364E+05	7.452E+07	5.007E+03	2.137E+03	5.961E+05	4.005E+01
2039	1.297E+05	7.088E+07	4.763E+03	2.033E+03	5.671E+05	3.810E+01
2040	1.234E+05	6.743E+07	4.530E+03	1.933E+03	5.394E+05	3.624E+01
2041	1.174E+05	6.414E+07	4.309E+03	1.839E+03	5.131E+05	3.447E+01
2042	1.117E+05	6.101E+07	4.099E+03	1.749E+03	4.881E+05	3.279E+01
2043	1.062E+05	5.803E+07	3.899E+03	1.664E+03	4.643E+05	3.119E+01
2044	1.010E+05	5.520E+07	3.709E+03	1.583E+03	4.416E+05	2.967E+01
2045	9.612E+04	5.251E+07	3.528E+03	1.506E+03	4.201E+05	2.823E+01
2046	9.143E+04	4.995E+07	3.356E+03	1.432E+03	3.996E+05	2.685E+01
2047	8.697E+04	4.751E+07	3.192E+03	1.362E+03	3.801E+05	2.554E+01
2048	8.273E+04	4.520E+07	3.037E+03	1.296E+03	3.616E+05	2.429E+01
2049	7.870E+04	4.299E+07	2.889E+03	1.233E+03	3.439E+05	2.311E+01
2050	7.486E+04	4.090E+07	2.748E+03	1.173E+03	3.272E+05	2.198E+01
2051	7.121E+04	3.890E+07	2.614E+03	1.116E+03	3.112E+05	2.091E+01
2052	6.774E+04	3.700E+07	2.486E+03	1.061E+03	2.960E+05	1.989E+01
2053	6.443E+04	3.520E+07	2.365E+03	1.009E+03	2.816E+05	1.892E+01
2054	6.129E+04	3.348E+07	2.250E+03	9.601E+02	2.679E+05	1.800E+01
2055	5.830E+04	3.185E+07	2.140E+03	9.133E+02	2.548E+05	1.712E+01

Results (Continued)

Year	Carbon dioxide			NMOC		
	(Mg/year)	*(m^3/year)*	*(av ft^3/min)*	*(Mg/year)*	*(m^3/year)*	*(av ft^3/min)*
2056	5.546E+04	3.030E+07	2.036E+03	8.688E+02	2.424E+05	1.628E+01
2057	5.275E+04	2.882E+07	1.936E+03	8.264E+02	2.305E+05	1.549E+01
2058	5.018E+04	2.741E+07	1.842E+03	7.861E+02	2.193E+05	1.473E+01
2059	4.773E+04	2.608E+07	1.752E+03	7.477E+02	2.086E+05	1.402E+01
2060	4.540E+04	2.480E+07	1.667E+03	7.113E+02	1.984E+05	1.333E+01
2061	4.319E+04	2.359E+07	1.585E+03	6.766E+02	1.888E+05	1.268E+01
2062	4.108E+04	2.244E+07	1.508E+03	6.436E+02	1.796E+05	1.206E+01
2063	3.908E+04	2.135E+07	1.434E+03	6.122E+02	1.708E+05	1.148E+01
2064	3.717E+04	2.031E+07	1.364E+03	5.823E+02	1.625E+05	1.092E+01
2065	3.536E+04	1.932E+07	1.298E+03	5.539E+02	1.545E+05	1.038E+01
2066	3.364E+04	1.838E+07	1.235E+03	5.269E+02	1.470E+05	9.877E+00
2067	3.200E+04	1.748E+07	1.174E+03	5.012E+02	1.398E+05	9.395E+00
2068	3.044E+04	1.663E+07	1.117E+03	4.768E+02	1.330E+05	8.937E+00
2069	2.895E+04	1.582E+07	1.063E+03	4.535E+02	1.265E+05	8.501E+00
2070	2.754E+04	1.504E+07	1.011E+03	4.314E+02	1.204E+05	8.087E+00
2071	2.620E+04	1.431E+07	9.615E+02	4.104E+02	1.145E+05	7.692E+00
2072	2.492E+04	1.361E+07	9.146E+02	3.904E+02	1.089E+05	7.317E+00
2073	2.370E+04	1.295E+07	8.700E+02	3.713E+02	1.036E+05	6.960E+00
2074	2.255E+04	1.232E+07	8.276E+02	3.532E+02	9.854E+04	6.621E+00
2075	2.145E+04	1.172E+07	7.872E+02	3.360E+02	9.373E+04	6.298E+00
2076	2.040E+04	1.115E+07	7.488E+02	3.196E+02	8.916E+04	5.991E+00
2077	1.941E+04	1.060E+07	7.123E+02	3.040E+02	8.481E+04	5.699E+00
2078	1.846E+04	1.008E+07	6.776E+02	2.892E+02	8.068E+04	5.421E+00
2079	1.756E+04	9.593E+06	6.445E+02	2.751E+02	7.674E+04	5.156E+00
2080	1.670E+04	9.125E+06	6.131E+02	2.617E+02	7.300E+04	4.905E+00
2081	1.589E+04	8.680E+06	5.832E+02	2.489E+02	6.944E+04	4.666E+00
2082	1.511E+04	8.257E+06	5.548E+02	2.368E+02	6.605E+04	4.438E+00
2083	1.438E+04	7.854E+06	5.277E+02	2.252E+02	6.283E+04	4.222E+00
2084	1.368E+04	7.471E+06	5.020E+02	2.142E+02	5.977E+04	4.016E+00
2085	1.301E+04	7.107E+06	4.775E+02	2.038E+02	5.685E+04	3.820E+00
2086	1.237E+04	6.760E+06	4.542E+02	1.938E+02	5.408E+04	3.634E+00
2087	1.177E+04	6.430E+06	4.320E+02	1.844E+02	5.144E+04	3.456E+00
2088	1.120E+04	6.117E+06	4.110E+02	1.754E+02	4.893E+04	3.288E+00
2089	1.065E+04	5.818E+06	3.909E+02	1.668E+02	4.655E+04	3.127E+00
2090	1.013E+04	5.535E+06	3.719E+02	1.587E+02	4.428E+04	2.975E+00
2091	9.637E+03	5.265E+06	3.537E+02	1.510E+02	4.212E+04	2.830E+00
2092	9.167E+03	5.008E+06	3.365E+02	1.436E+02	4.006E+04	2.692E+00
2093	8.720E+03	4.764E+06	3.201E+02	1.366E+02	3.811E+04	2.561E+00
2094	8.295E+03	4.531E+06	3.045E+02	1.299E+02	3.625E+04	2.436E+00
2095	7.890E+03	4.310E+06	2.896E+02	1.236E+02	3.448E+04	2.317E+00

Attachment 3

SCS ENGINEERS
4 Executive Blvd.
Suite 303
Suffern, NY 10901
845-357-1510 FAX: 845-357-1049

JOB NO. 13200021.52
SHEET NO. 1 OF 1
CALCULATED BY LKW DATE 11-21-16
CHECKED BY _____ DATE _____
SCALE _____

Exhibit H-1 Mass Emission Rate Calculation

Mass Emission Rate Equation

$$M_{NMOC} = 1.89 \times 10^{-3} \times Q_{LFG} \times C_{NMOC}$$

Where:
M_{NMOC}: mass emission rate of NMOC , megagrams per year.
Q_{LFG}: flow rate of landfill gas, cubic meter per minute
C_{NMOC}: NMOC concentration, parts per million by volume as hexane.
Flow Conversion Factor: 1 cf = 0.02832 m^3

Location	Sample Date	NMOC (ppm as C)	NMOC (ppm as Hexane) (1)	Flow (cfm) (2)	Total Emission Rate (Mg/yr)
36" Header Raw	**11/16/2015**		130.0	8000	**55.7**

(1) from November 2015 NMOC sampling
(2) assumed flow

P:\providence\SCS Engineers Providence\Projects\FY00-01\13200021.52\NSPS Subpart XXX Reg Support\Attachments\[Attach 3A NMOC Emission Rate Calcs 2016-11.xls]2-NMOC Data

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **SCS Engineers**
Client Project ID: **RIRRC Landfill 4th Quarter Sampling / 13200021.48** ALS Project ID: P1504946

Total Gaseous Nonmethane Organics (TGNMO) as Hexane

Test Code: EPA Method 25C Modified
Instrument ID: HP5890 II/GC1/FID/TCA
Analyst: Nalini Lall
Sampling Media: 1.0 L Tedlar Bag(s)
Test Notes:

Date(s) Collected: 11/16/15
Date Received: 11/17/15
Date Analyzed: 11/18/15

Client Sample ID	ALS Sample ID	Injection Volume ml(s)	**Result ppmV**	MRL! ppmV	Data Qualifier
36" Header Raw	P1504946-001	0.50	**130**	0.17	
Method Blank	P151118-MB	0.50	ND	0.17	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
! = For consistency purposes, the actual MRL was divided by six and reported as Hexane.

Attachment 4

RHODE ISLAND RESOURCE RECOVERY CORPORATION
JOHNSTON, RHODE ISLAND

2015 ANNUAL EMISSION STATEMENT
TABLE 5
NMOC/VOC CALCULATIONS

VOC/NMOC CONCENTRATION BY PHASE

Parameter	MW (g/mol)	Phase I (ppmv)	Phase II/III (ppmv)	Phase IV (ppmv)	Phase V (ppmv)
NMOC Conc.	86.18	663.9	663.9	1119	422
VOC Conc.	86.18	663.9	663.9	1119	422

VOC/NMOC EMISSIONS

Period	Phase I (MMscf)	Phase II/III (MMscf)	Phase IV (MMscf)	Phase V (MMscf)	Total (MMscf)	NMOC Emissions (tons)	VOC Emissions (tons)
VOC/NMOC EMISSIONS FROM FUGITIVE GAS							
Q1	4.30	5.15	8.38	109.43	127.25	16.11	16.11
Q2	4.41	5.67	8.24	107.49	125.81	17.36	17.36
Q3	4.74	5.34	9.58	104.07	123.72	16.27	16.27
Q4	4.97	5.39	8.01	103.13	121.49	17.68	17.68
Ozone Season	4.72	5.63	9.01	106.92	126.27	16.44	16.44
Year	18.41	21.55	34.21	424.11	498.28	**67.41**	**67.41**
VOC/NMOC FROM ULE FLARE							
Q1	0.00	0.00	0.00	1.98	1.98	0.00	0.00
Q2	0.00	0.00	9.31	19.81	29.11	0.02	0.02
Q3	0.00	2.98	8.65	26.92	38.55	0.03	0.03
Q4	0.00	2.81	7.17	19.66	29.64	0.02	0.02
Ozone Season	0.00	0.00	0.41	0.06	0.47	0.00	0.00
Year	0.00	5.79	25.12	68.37	99.28	**0.07**	**0.07**
VOC/NMOC FROM OPEN FLARES							
Q1	0.51	0.75	0.00	0.00	1.26	0.00	0.00
Q2	3.28	4.98	0.00	0.00	8.26	0.01	0.01
Q3	0.91	0.12	0.00	0.00	1.03	0.00	0.00
Q4	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ozone Season	0.10	0.12	0.00	0.00	0.23	0.00	0.00
Year	4.69	5.85	0.00	0.00	10.55	**0.02**	**0.02**
Flare Total	4.69	11.64	25.12	68.37	109.83	0.08	0.08
Total	23.10	33.19	59.33	492.48	608.11	67.50	67.50

(1) ULE Flare destruction efficiency **99%**
(2) Open Flare destruction efficiency **98%**
(3) VOC/NMOC Emissions from fugitive gas taken from spreadsheet provided by RIRRC

To: Air Permit Exchange[permit@lists.epa.gov]
From: BECKHAM, LISA
Sent: Mon 2/26/2018 9:49:46 PM
Subject: RE:[permit] NSPS Subpart XXX

I suggest the recent brief we filed as the best piece of guidance – I've copy and pasted it below. Also as an FYI, we sent a letter to California today about their State plan for existing landfills. I pasted it below as well.

The brief basically says the stay had no effect.

*****Brief*****

Petitioners Natural Resources Defense Council, Clean Air Council, Clean Wisconsin, and Conservation Law Foundation (collectively, Petitioners), and Respondents E. Scott Pruitt and the United States Environmental Protection Agency (together, EPA) agree to dismiss this case pursuant to Federal Rule of Appellate Procedure 42(b). Petitioners and EPA inform the Court as follows:

This case involves a petition for review of the EPA final action published on May 31, 2017, and titled "Stay of Standards of Performance for Municipal Solid Waste Landfills and Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills," 82 Fed. Reg. 24,878 (May 31, 2017) (hereinafter "Stay Decision").

In EPA's response brief dated January 22, 2018, ECF No. 1714147, the Agency made the following representations:

1. "The Stay Decision only affects deadlines in the 2016 regulations that would have otherwise applied during the 90 days in which the stay was in effect," that is, from May 31, 2017, until August 29, 2017. EPA Br. at 2.
2. With regard to new landfills: "EPA is not aware of any new landfills affected by the Stay Decision" (that is, landfills with "deadlines [that] fell within the period of the stay") and "Petitioners have not pointed to any." EPA Br. at 37-42.
3. With regard to existing landfills: "the Stay Decision by its express terms began on May 31, not May 30, and therefore did not alter the May 30" deadline for states to submit implementation plans for existing landfills "and EPA did not purport to retroactively extend that date." EPA Br. at 35. Additionally, "the Stay Decision did not affect any subsequent deadlines for existing landfills." EPA Br. at 36.
4. With regard to EPA's obligations: "EPA had four months, until September 31, 2017, to approve or disapprove any state plans that were timely submitted by May 30, and six

> months, until November 30, 2017, to promulgate a federal plan for states that did not timely submit state plans." EPA Br. at 36. These deadlines "have come and gone, and the Stay Decision had no effect on them." *Id.* "EPA has neither approved nor disapproved the state plans that were timely submitted, nor promulgated any federal plans." EPA Br. at 37.

In light of these representations, Petitioners have elected to voluntarily dismiss this petition for review. Petitioners and EPA hereby agree to the voluntary dismissal of the above-captioned petition for review pursuant to Federal Rule of Appellate Procedure 42(b). Each party shall bear its own costs.

****Letter to California****

Dear Mr. Corey:

I am writing in response to your December 4, 2017 letter concerning the Landfill Emission Guidelines

(EG) recently promulgated by the Environmental Protection Agency (EPA) and located at 40 CFR Part

60, Subpart Cf. We have received the California Air Resources Board's (CARB) May 30, 2017 state plan

to implement the EG. As you may know, in May 2017 the EPA announced it is reconsidering several

issues in the 2016 final rules for Municipal Solid Waste Landfills New Source Performance Standards

(NSPS) and EG. On May 31, 2017, the EPA issued a 90-day stay on the 2016 EG. The 90-stay expired

on August 29, 2017; thus, the 2016 rules are currently in effect. The EPA still intends to complete the

reconsideration process granted by the Administrator.

Since the Agency is reconsidering various issues regarding the landfill regulations, at this time we do not

plan to prioritize the review of submitted state plans nor are we working to issue a Federal Plan for states

that failed to submit a state plan. Please also note that under 40 CER § 60.27(c), the requirement for the

EPA to develop a Federal Plan has not been triggered for the State of California since CARB has

submitted a timely plan. Additionally, we are currently working to align our reconsideration of certain

portions of the EG with the risk and technology review (RTR) for this source category. The EPA has a

court order to complete the RTR by March 13, 2020 and the reconsideration will be finished on the same

timeline.

Thank you for your letter and I hope this message allays your concerns about a Federal Plan. If you have

any questions about this letter, please call me at (415) 972-3851 or Amy Zimpfer at (415) 947-4146 or

have your staff contact Jeffrey Buss at (415) 947-4152 or Lisa Beckham at (415) 972-3811.

Sincerely,

Matthew J. Lakin

Acting Director, Air Division

From: Law, Donald [mailto:Law.Donald@epa.gov]
Sent: Monday, February 26, 2018 1:16 PM
To: Air Permit Exchange <permit@lists.epa.gov>
Subject: [permit] NSPS Subpart XXX

The Region has been receiving several inquiries on the NSPS subpart XXX stay and how to work through the applicability with the stay lifted. Mainly the concern is the clarification on which rules apply (WWW or XXX). Has there been any other guidance put out on these two rules?

You are currently subscribed to permit as: Beckham.Lisa@epa.gov .
To unsubscribe send a blank email to: leave-1694406-2127996.1c2be31c9b65bc637dc9005788795363@lists.epa.gov .

You are currently subscribed to permit as: Bird.Patrick@epa.gov .
To unsubscribe send a blank email to: leave-1694416-2458172.9a05440d3daccba21b3b956af681f3cb@lists.epa.gov .

To: Roberge, Michele[Michele.Roberge@des.nh.gov]
Cc: McDonnell, Ida[McDonnell.Ida@epa.gov]; McManus, Karla[Karla.McManus@des.nh.gov]; Dorfschmidt, Barbara[Barbara.Dorfschmidt@des.nh.gov]; Cathy Beahm (Catherine.beahm@des.nh.gov)[Catherine.beahm@des.nh.gov]
From: Bird, Patrick
Sent: Fri 3/31/2017 5:06:34 PM
Subject: RE: EPA Landfill Regulations
1120-30 Proposed 3-12.pdf
Proposed MSWL State Plan - 3-12AB.PDF

Hi Michele,

Following up on our conversation yesterday, I've attached the Delaware example I referenced. Included is their draft state plan and proposed regulation. The regulation is out for public comment. I have not reviewed it line by line, comparing the NSPS with the emission guideline, but presumable Delaware did (!), as did my counterpart in Region 3.

Let me know if you have any questions.

Thanks,

Pat

Patrick Bird

U.S. EPA - Region 1

5 Post Office Square, OEP05-2

Boston, MA 02109-3912

Phone: 617-918-1287

Fax: 617-918-0287

Email: bird.patrick@epa.gov

From: Roberge, Michele [mailto:Michele.Roberge@des.nh.gov]
Sent: Wednesday, March 29, 2017 1:20 PM
To: Bird, Patrick <Bird.Patrick@epa.gov>; McManus, Karla <Karla.McManus@des.nh.gov>
Cc: McDonnell, Ida <McDonnell.Ida@epa.gov>
Subject: RE: EPA Landfill Regulations

Will do. Thanks Pat. Joining me on the call will be Karla McManus, Cathy Beahm and Barbara Dorfschmidt.

From: Bird, Patrick [mailto:Bird.Patrick@epa.gov]
Sent: Wednesday, March 29, 2017 12:24 PM
To: Roberge, Michele; McManus, Karla
Cc: McDonnell, Ida
Subject: RE: EPA Landfill Regulations

Hi Michele and Karla,

To help frame our discussion, here is a brief agenda:

- Regulatory updates
- Review of communication between EPA and state
- Sources affected in New Hampshire
- Plans moving forward
    - States regulatory approach, timeline, EPA resources needed

Ida plans to sit in on this call, so please call her office phone at 1 pm tomorrow: 617-918-1653.

Thanks,

Pat

Patrick Bird

U.S. EPA - Region 1

5 Post Office Square, OEP05-2

Boston, MA 02109-3912

Phone: 617-918-1287

Fax: 617-918-0287

Email: bird.patrick@epa.gov

From: Bird, Patrick
Sent: Tuesday, March 28, 2017 4:07 PM
To: 'Roberge, Michele' <Michele.Roberge@des.nh.gov>; McManus, Karla <Karla.McManus@des.nh.gov>
Subject: RE: EPA Landfill Regulations

Thanks would be great. We'll talk then.

Patrick Bird

U.S. EPA - Region 1

5 Post Office Square, OEP05-2

Boston, MA 02109-3912

Phone: 617-918-1287

Fax: 617-918-0287

Email: bird.patrick@epa.gov

From: Roberge, Michele [mailto:Michele.Roberge@des.nh.gov]
Sent: Tuesday, March 28, 2017 12:56 PM
To: Bird, Patrick <Bird.Patrick@epa.gov>; McManus, Karla <Karla.McManus@des.nh.gov>
Subject: RE: EPA Landfill Regulations

Hi Pat,

Yes, Thursday at 1 pm works for us. Should we call your office number?

Thanks,

Michele

From: Bird, Patrick [mailto:Bird.Patrick@epa.gov]
Sent: Tuesday, March 28, 2017 12:22 PM
To: Roberge, Michele; McManus, Karla
Subject: RE: EPA Landfill Regulations

Hi Michele,

This would be a higher level discussion – determining applicable existing sources, timelines, etc. We are just trying to get a handle on where states are in addressing this regulatory shift in applicability for new and existing sources.

Shall we say Thursday at 1 pm? This meeting shouldn't take longer than 30 mins.

Thanks,

Pat

Patrick Bird

U.S. EPA - Region 1

5 Post Office Square, OEP05-2

Boston, MA 02109-3912

Phone: 617-918-1287

Fax: 617-918-0287

Email: bird.patrick@epa.gov

From: Roberge, Michele [mailto:Michele.Roberge@des.nh.gov]
Sent: Tuesday, March 28, 2017 11:34 AM
To: Bird, Patrick <Bird.Patrick@epa.gov>; McManus, Karla <Karla.McManus@des.nh.gov>
Subject: RE: EPA Landfill Regulations

Hi Patrick,

Yes, I'm available to talk about this but was wondering how much information you need – in other words do I need to include the program staff that will be working on developing the rules for the landfill emission guideline? Or is this more general in nature (i.e.: anticipated timelines, etc.). If I need to include additional staff then I'll have to check schedules.

I'm available on Thursday afternoon but currently I do have a meeting scheduled from 2 -3 PM. I'm also available on Friday morning but do have a meeting from 10 – 11 AM. We could try either 1 or 3 PM on Thursday, or 9 or 11 AM on Friday. If I have to include other staff then I'll

need to check schedules.

Thanks,

Michele

Michele J. Roberge

SIP Planning Administrator

NH Department of Environmental Services

Air Resources Division

29 Hazen Drive

PO Box 95

Concord, New Hampshire 03302-0095

Phone: (603) 271-6793

Email: Michele.Roberge@des.nh.gov

From: Bird, Patrick [mailto:Bird.Patrick@epa.gov]
Sent: Tuesday, March 28, 2017 11:23 AM
To: McManus, Karla; Roberge, Michele
Subject: RE: EPA Landfill Regulations

Ok, great. Thank you.

Michele, are you free to talk this week or next? This week, I'm free Thursday afternoon (12-3:30) and Friday morning. Next week, mornings Tuesday-Friday work good, too.

Thanks,

Pat

Patrick Bird

U.S. EPA - Region 1

5 Post Office Square, OEP05-2

Boston, MA 02109-3912

Phone: 617-918-1287

Fax: 617-918-0287

Email: bird.patrick@epa.gov

From: McManus, Karla [mailto:Karla.McManus@des.nh.gov]
Sent: Tuesday, March 28, 2017 11:12 AM
To: Bird, Patrick <Bird.Patrick@epa.gov>; Roberge, Michele <Michele.Roberge@des.nh.gov>
Subject: RE: EPA Landfill Regulations

Hi Patrick,

Michele Roberge is my boss (she has Barbara Hoffman's old job), so she's the one who is probably the contact. I've added her to this e-mail.

Thanks,

Karla

From: Bird, Patrick [mailto:Bird.Patrick@epa.gov]
Sent: Tuesday, March 28, 2017 11:06 AM
To: McManus, Karla
Subject: EPA Landfill Regulations

Hi Karla,

Are you the contact in New Hampshire for landfill regulations? We are checking with each state on progress re: EPA's updated landfill regulations. It's a P&C item that we check in midyear to discuss progress on addressing the shift in applicability between new and existing source landfills.

Thanks,

Pat

Patrick Bird

U.S. EPA - Region 1

5 Post Office Square, OEP05-2

Boston, MA 02109-3912

Phone: 617-918-1287

Fax: 617-918-0287

Email: bird.patrick@epa.gov

To: Wolman, Marc (DEP)[Marc.Wolman@MassMail.State.MA.US]
Cc: McDonnell, Ida[McDonnell.Ida@epa.gov]; Keith, Glenn (DEP)[glenn.keith@state.ma.us]; Tian, Yi (DEP)[yi.tian@state.ma.us]
From: Bird, Patrick
Sent: Fri 3/31/2017 4:55:15 PM
Subject: RE: EPA's Landfill Regulations
1120-30 Proposed 3-12.pdf
Proposed MSWL State Plan - 3-12AB.PDF
Landfill Reg Comparision.JPG

Hi Marc,

It was good talking with you, Yi, and Glenn. I wanted to follow up on few items.

Attached is the Delaware example I referenced. I'll reiterate my disclaimer on this - I haven't gone through this to compare the NSPS with the emission guidelines, but my counterpart from R3 has, as have folks from Delaware NREC (I hope so, at least!).

Also, I've attached a simplified table on the changes between the old landfill regulations and the updated landfill regs.

I'll schedule a follow up meeting in late April/early May to touch base.

Thanks,

Pat

Patrick Bird
U.S. EPA - Region 1
5 Post Office Square, OEP05-2
Boston, MA 02109-3912
Phone: 617-918-1287
Fax: 617-918-0287
Email: bird.patrick@epa.gov

-----Original Message-----
From: Wolman, Marc (DEP) [mailto:Marc.Wolman@MassMail.State.MA.US]
Sent: Wednesday, March 29, 2017 12:08 PM
To: Bird, Patrick <Bird.Patrick@epa.gov>
Cc: McDonnell, Ida <McDonnell.Ida@epa.gov>; Keith, Glenn (DEP) <glenn.keith@state.ma.us>; Tian, Yi (DEP) <yi.tian@state.ma.us>
Subject: RE: EPA's Landfill Regulations

Hi Pat:

It works for me.

Including Glenn Keith and Yi Tian here, as I hope at least one of them can join us.

- Marc

From: Bird, Patrick [Bird.Patrick@epa.gov]
Sent: Wednesday, March 29, 2017 11:05 AM
To: Wolman, Marc (DEP)
Cc: McDonnell, Ida
Subject: RE: EPA's Landfill Regulations

Marc,

I hate to do this, but Ida has a conflict at 1 pm. Are you available on Thursday? Say 2 pm?

Here is a draft agenda for our discussion:

- Regulatory updates
- Review of communication between EPA and state
- Sources affected in Massachusetts
- Plans moving forward
    - States regulatory approach, timeline, EPA resources needed

Thanks,

Pat

Patrick Bird
U.S. EPA - Region 1
5 Post Office Square, OEP05-2
Boston, MA 02109-3912
Phone: 617-918-1287
Fax: 617-918-0287
Email: bird.patrick@epa.gov

-----Original Message-----
From: Wolman, Marc (DEP) [mailto:marc.wolman@state.ma.us]
Sent: Tuesday, March 21, 2017 12:16 PM
To: Bird, Patrick <Bird.Patrick@epa.gov>
Subject: RE: EPA's Landfill Regulations

OK - I'll put it in my calendar

From: Bird, Patrick [Bird.Patrick@epa.gov]
Sent: Tuesday, March 21, 2017 12:13 PM
To: Wolman, Marc (DEP)
Subject: RE: EPA's Landfill Regulations

Wednesday at 1:00 pm?

Patrick Bird
U.S. EPA - Region 1
5 Post Office Square, OEP05-2
Boston, MA 02109-3912
Phone: 617-918-1287
Fax: 617-918-0287
Email: bird.patrick@epa.gov

-----Original Message-----
From: Wolman, Marc (DEP) [mailto:marc.wolman@state.ma.us]
Sent: Tuesday, March 21, 2017 9:22 AM
To: Bird, Patrick <Bird.Patrick@epa.gov>
Subject: RE: EPA's Landfill Regulations

Either fine, fewer things to move around (if needed) Wednesday afternoon

---

From: Bird, Patrick [Bird.Patrick@epa.gov]
Sent: Tuesday, March 21, 2017 8:25 AM
To: Wolman, Marc (DEP)
Subject: RE: EPA's Landfill Regulations

How's Tuesday morning or Wednesday afternoon looking on your end?

Patrick Bird
U.S. EPA - Region 1
5 Post Office Square, OEP05-2
Boston, MA 02109-3912
Phone: 617-918-1287
Fax: 617-918-0287
Email: bird.patrick@epa.gov

-----Original Message-----
From: Wolman, Marc (DEP) [mailto:marc.wolman@state.ma.us]
Sent: Monday, March 20, 2017 4:41 PM
To: Bird, Patrick <Bird.Patrick@epa.gov>
Subject: RE: EPA's Landfill Regulations

For sure

From: Bird, Patrick [Bird.Patrick@epa.gov]
Sent: Monday, March 20, 2017 4:39 PM
To: Wolman, Marc (DEP)
Subject: EPA's Landfill Regulations

Hi Marc,

There is a condition in the P&C list that has us checking in mid-year to discuss the state's efforts in adopting EPA's updated landfill regulations. You've expressed skepticism in Massachusetts adopting any new regulations, but I'd like to schedule a call to discuss in further detail. Are you available to talk next week?

Thanks,

Pat

Patrick Bird
U.S. EPA - Region 1
5 Post Office Square, OEP05-2
Boston, MA 02109-3912
Phone: 617-918-1287
Fax: 617-918-0287
Email: bird.patrick@epa.gov

To: Elliott, Doug[Doug.Elliott@vermont.gov]
Cc: McDonnell, Ida[McDonnell.Ida@epa.gov]
From: Bird, Patrick
Sent: Wed 3/29/2017 5:08:26 PM
Subject: EPA's Updated Landfill Regulations
Proposed MSWL State Plan - 3-12AB.PDF
1120-30 Proposed 3-12.pdf

Hi Doug,

It was good talking with you today. Just to summarize our conversation, NEWSVT is the only source in Vermont subject to the existing source landfill regulation. You are interested in IBRing the NSPS and amending in areas where the NSPS and Emission Guidelines differ.

Attached is the Delaware example I mentioned. I've included the draft regulation (IBR + amendments) and the draft state plan that would accompany the reg in a submittal to EPA. I have not reviewed the Delaware regulation specifically, but if you choose to go this route, we would want to make sure they covered everything and better understand why they did what they did in the "amendment" sections.

Let's talk again in a few weeks. I am free all day until late in the afternoon on Thursday 4/13 - let me know your availability, and we can firm up a meeting time.

Pat

Patrick Bird

U.S. EPA - Region 1

5 Post Office Square, OEP05-2

Boston, MA 02109-3912

Phone: 617-918-1287

Fax: 617-918-0287

Email: bird.patrick@epa.gov

To: landfill-111d@capcoa.org[landfill-111d@capcoa.org]
Cc: ARB (LMR) Landfill[ARBLMR@arb.ca.gov]; Dilley, Shannon@ARB[Shannon.Dilley@arb.ca.gov]; Griffin, Gerald[Gerald.Griffin@sdcounty.ca.gov]; BECKHAM, LISA[BECKHAM.LISA@EPA.GOV]
From: Crooks, Renaldo@ARB
Sent: Wed 2/15/2017 12:32:47 AM
Subject: [Landfill - 111(d)] 111(d) Landfill Workgroup Conference Call
2-2017 Draft EG TECHNICAL GUIDANCE SMD.docx

All -

Attached is the latest version of the 111(d) Landfill Guidance for your review and comment. This version incorporates comments that were received from the workgroup which consisted of: minor corrections to the text and references to the Emission Guidelines (Subpart Cf). The most significant changes were addressing specifications for active collection systems (see Section F(2)(a) of the Guidance) and compliance times (see Section H of the Guidance).

As a reminder, our next conference call is as follows:

Date: February 15, 2017

Time: 10:00 am – 11:00 am

Call in number: 1-866-765-6804

Participant code: 7130436

If you have any questions, please contact me via email or at (916) 327-5618.

Renaldo

Draft Technical Guidance for Implementing Emission Guidelines for Municipal Solid Waste Landfills 40 CFR Part 60 Subpart Cf

A. Purpose

The purpose of this rule is to reduce landfill gas (LFG) emissions, which contain both non-methane organic compounds (NMOC) and methane from municipal solid waste (MSW) landfills by implementing the provisions of Title 40 Code of Federal Regulations (CFR) Part 60, Subpart Cf—Emission Guidelines and Compliance Times for MSW Landfills, Final Rule, as promulgated on August 29, 2016 (81 Fed.Reg. 59275 [Aug. 29, 2016]) and the Federal Clean Air Act (CAA), 42 U.S.C. § 7401, et seq.[1]

B. Applicability

This rule applies to all existing MSW landfills meeting the following conditions:

(1) Construction, reconstruction, or modification was commenced on or before July 17, 2014;[2] and

(2) The MSW landfill has accepted waste after November 8, 1987 or has additional design capacity available for future waste deposition.

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C. Definitions

Terms used in this rule have the same meaning as in 40 CFR § 60.761. Terms used but not defined in this rule have the meaning given them in the CAA and 40 CFR, Part 60, Subparts A and B (Definitions), except:

(1) *Administrator,* for the purposes of this rule, means the Air Pollution Control Officer of the **[insert name of APCD/AQMD here],** pursuant to 40 CFR § 60.41f, except that the APCO shall not be empowered to approve:

(a) Alternative methods to determine the NMOC concentration or a site-specific methane generation rate constant (k) (40 CFR § 60.760 (b)).

[1] 40 CFR Part 60, Subpart B (Adoption and Submittal of State Plans for Designated Facilities) requires California Air Resources Board and Air Pollution Control Districts to submit a State Plan to the United States Environmental Protection Agency (U.S. EPA) Regional Administrator by May 30, 2017.
[2] This Technical Guidance references 40 CFR Part 60, Subpart XXX as many of the requirements of Subpart XXX are the same as the requirements under 40 CFR Part 60, Subpart Cf.

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(2) *Closed landfill subcategory* means a closed landfill that has submitted a closure report as specified in 40 CFR § 60.767(e) on or before September 27, 2017 (40 CFR § 60.41f).

(3) *Design plan* means the site-specific design plan for the gas collection and control system submitted under section F(3) of this rule.

(4) *Protectorate* means American Samoa, the Commonwealth of Puerto Rico, the District of Columbia, Guam, the Northern Mariana Islands, and the Virgin Islands (40 CFR § 60.41f).[3]

(5) *State* means any of the 50 United States and the protectorates of the United States (40 CFR § 60.41f).

(6) *State Plan* means a plan submitted pursuant to section 111(d) of the CAA and subpart B of this part that implements and enforces subpart (40 CFR § 60.31 to 60.41f)).

D. Exemptions

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(1) Any MSW landfill that is subject to the requirements of 40 CFR Part 60, Subpart XXX – Standards of Performance for MSW Landfills that Commenced Construction, Reconstruction, or Modification After July 17, 2014 (40 CFR § 60.760 New Source Performance Standards) is exempt from the requirements of this rule (40 CFR § 60.31f(a)).

(2) Physical or operational changes made to an existing MSW landfill solely to comply with this rule are not considered a modification or reconstruction and would not subject an existing MSW landfill to the requirements of a standard of performance for new MSW landfills (40 CFR § 60.31f(b)). If the design capacity increase is the result of a change in operating practices, density, or some other change that is not a modification as defined in this rule, then the landfill remains subject to this rule (40 CFR § 60.33f(d)(1)).

E. Effective Date

The effective date of this rule is the date the United States Environmental Protection

[3] Definitions 4 through 6 are identified in 40 CFR Part 60, Subpart Cf.

Agency (U.S. EPA) promulgates approval of the District's State Plan, through publication in the Federal Register, to implement the requirements of 40 CFR Part 60, Subpart Cf.

F. Standards

(1) *Installation of Gas Collection and Control System.* Each owner or operator of a MSW landfill having a design capacity equal to or greater than 2.5 million megagrams by mass and 2.5 million cubic meters by volume must either:

(a) Install a collection and control system that meets the criteria provided in 40 CFR § 60.762, or

(b) Calculate an initial NMOC emission rate for the landfill using the procedures specified in 40 CFR § 60.764, except that:

(i) *Closed Landfill Subcategory.* Pursuant to 60 CFR §§ 60.33f(e)(1)(C) and (e)(3), for the closed landfill subcategory, if the most *recent* calculated NMOC emission rate is equal to or greater than 50 megagrams per year or if the calculated NMOC emission rate is equal to or greater than 50 megagrams per year using Tier 1, 2, or 3 procedures, the owner or operator must either:

(A) Submit a gas collection and control system design plan as specified in 40 CFR § 60.38f(d), except for exemptions allowed under 40 CFR § 60.31f(e)(3), and install a collection and control system as provided in 40 CFR § 60.762;

(B) Calculate NMOC emissions using the next higher tier in 40 CFR § 60.764; or

(C) Conduct a surface emission monitoring demonstration using the procedures specified in 40 CFR § 60.764(a)(6), as applicable.

(2) *Gas Collection and Control System Design Plan*. The owner or operator of each MSW landfill subject to the provisions of 40 CFR § 60.762(b)(2) must submit a gas collection and control system design plan in accordance with the provisions of 40 CFR § 60.767 (c)(1) through (7) that meets the control requirements of 40 CFR § 60.762.

(a) The collection and control system design plan must either conform

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with specifications for active collection systems in 40 CFR § 60.769 or include a demonstration to the Air Pollution Control Officer's satisfaction of the sufficiency of the alternative provisions to 40 CFR § 60.769.

(3) *Title V Operating Permits*. For purposes of obtaining an operating permit under Title V of the CAA, each owner or operator of a MSW landfill must comply with the provisions in 40 CFR § 60.762(c), except that:

(a) Each owner or operator of a MSW landfill subject to this rule with a design capacity greater than or equal to 2.5 million megagrams and 2.5 million cubic meters that is not otherwise subject to either 40 CFR, Parts 70 or 71, becomes subject to the requirements 40 CFR § 70.5(a)(1)(i) or §71.5(a)(1)(i) of this chapter 90 days after the effective date of the U.S. EPA approval, even if the design capacity report is submitted earlier.

(b) If a MSW landfill is closed, the owner or operator is no longer subject to the requirement to maintain an operating permit under 40 CFR Parts 70 or 71 if the landfill is not otherwise subject to the requirements of either Parts 70 or 71 and if either of the following conditions are met:

(i) The landfill was never subject to the requirement to install and operate a gas collection and control system under this rule; or

(ii) The landfill meets the conditions for control system removal as specified in section F(9) of this rule.

(4) *Passive Gas Collection Systems and Non-Enclosed Flares*. 40 CFR § 60.762 (b)(2)(ii)(D) and (b)(2)(iii)(A), concerning the use of passive collection systems and non-enclosed flares do not apply to MSW landfills subject to this rule.

(5) *Operational Standards and Procedures*. Each MSW landfill required to install a gas collection and control system under this section shall meet the operational standards in 40 CFR § 60.763.

(6) *Test Methods and Procedures.* Each MSW landfill required to install a gas collection and control system under this section shall meet the test methods and procedures in 40 CFR § 60.764.

(7) *Compliance Provisions*. Each MSW landfill required to install a gas collection and control system under this section shall meet the compliance provisions in 40 CFR § 60.765.

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(8) *Monitoring Provisions*. Each MSW landfill required to install a gas collection and control system under this section shall meet the monitoring provisions in 40 CFR § 60.766

(9) *Removal Criteria*. The gas collection and control system at a closed MSW landfill may be capped, removed, or decommissioned provided the criteria in 40 CFR § 60.762(b)(2)(v) are met, except that:

(a) For a MSW landfill in the closed landfill subcategory, the calculated NMOC emission rate at the landfill must be less than 50 megagrams per year on three successive test dates following the procedures in 40 CFR § 60.764(b). The test dates must be no less than 90 days apart, and no more than 180 days apart (60 CFR § 60.33f(f)(4)).

(b) Within 60 days after the date of calculating the NMOC emission rate for purposes of determining when the system can be capped or removed, the owner or operator must submit the results according to 40 CFR § 60.767(6)(ii)(2).

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G. Recordkeeping and Reporting Requirements

(1) *Recordkeeping*. The owner or operator of each MSW landfill shall meet the recordkeeping requirements of 40 CFR § 60.768, as applicable, except that:

(a) Each existing and planned collector in the system having a unique identification must match the labeling on the plot map required in 40 CFR § 60.767(d)(2).

(2) *Reporting*. The owner or operator of each MSW landfill shall meet the reporting requirements of 40 CFR § 60.767, as applicable, except:

(a) *Design Plan.* The owner or operator of a MSW landfill required to submit a design plan must also include a control system design plan cover page that contains the engineer's seal in addition to the requirements under 40 CFR § 60.767(c) (40 CFR § 60.38f(d)(4)).

(b) *Initial Performance Test Report*. The initial performance test report must be submitted, following the procedures specified in 40 CFR § 60.767(i)(1) no later than the date that the initial annual report is submitted.

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(c) *Liquids Addition*. In addition to meeting the requirements of 40 CFR § 60.767(k), the initial report must contain items in 40 CFR § 60.767(k)(1) through (6) per year for the *most recent 365 days* as well as for each of the previous 10 years, to the extent data are available, and the report must be submitted no later than 365 days after the date of commenced construction, modification, or reconstruction after August 29, 2016 (40 CFR § 60.38f(l)(7).

(3) *Closed Landfill Subcategory*. The owner or operator of each MSW landfill meeting the closed landfill subcategory must meet the recordkeeping and reporting requirements of 40 CFR § 60.39f and 40 CFR § 60.38f, except:

(a) The owner or operator of a landfill in the closed landfill subcategory is not subject to the following reports, provided the owner or operator submitted these reports under the provisions of 40 CFR Part 60, Subpart WWW, 40 CFR Part 62, Subpart GGG, or a state plan implementing Subpart Cc of 40 CFR Part 60, Subpart Cf on or before July 17, 2014:

(i) Initial design capacity report specified in 40 CFR § 60.767(a);

(ii) Initial or subsequent NMOC emission rate report specified in 40 CFR § 60.767(b), provided the most recent NMOC emission rate report indicated the NMOC emissions were below 50 megagrams per year;

(iii) Collection and control systems design plan specified in 40 CFR § 60.767(c);

(iv) Revised design plan specified in 40 CFR § 60.767(d);

(v) Closure report specified in 40 CFR § 60.767(e);

(vi) Equipment removal report specified in 40 CFR § 60.767(f);

(vii) Initial annual report specified in 40 CFR § 60.767(g); and

(viii) Initial performance test report in 40 CFR § 60.767(h).

(b) *Liquids Addition*. The requirements of 40 CFR § 60.767(k)(1) through (7) shall not apply to MSW landfills that are in the closed landfill subcategory; and

(c) *Equipment Removal Report*. The dated copies of three successive NMOC emission rate reports must demonstrate that the landfill is no longer producing 50 megagrams or greater of NMOC per year,

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unless the NMOC emission rate reports have been submitted to the U.S. EPA via the U.S. EPA's CDX.

H. Compliance Schedule

(1) The initial design capacity reports and NMOC emission rate reports required pursuant to 40 CFR § 60.762 and 40 CFR § 60.767 must be submitted no later than 90 days after the effective date of this rule under 40 CFR § 60.38(f)(a) and (c), except as provided in section G(3).

(2) Amended design capacity reports required pursuant to 40 CFR § 60.767 shall be submitted within 90 days of the increase of the maximum design capacity of the landfill to meet or exceed 2.5 million megagrams and 2.5 million cubic meters.

(3) The collection and control system design plan required under section F(2) of this rule shall be submitted within one year after determining that the MSW landfill has a NMOC emission rate equal to or greater than 34 megagrams per year, except as provided in 40 CFR § 60.767(c)(4)(i).

(4) The planning, awarding of contracts, installation, and starting up of the MSW landfill collection and control equipment required pursuant to section F(1) of this rule shall be accomplished within 30 months after meeting either of the following conditions:

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(a) An NMOC emission rate equal to or greater than 34 megagrams per year, as calculated pursuant to 40 CFR § 60.764 (Test Methods and Procedures) or a Tier 4 surface emissions monitoring report that shows a surface emissions concentration of 500 parts per million methane or greater as measured pursuant to 40 CFR § 60.764(a)(6); or

(b) A MSW landfill in the closed landfill subcategory having an NMOC emission rate equal to or greater than 50 megagrams per year, or Tier 4 surface emissions monitoring that shows a surface emissions concentration of 500 parts per million methane or greater pursuant to 40 CFR § 60.764(a)(6) and 40 CFR § 60.33f (b)(1)(ii).

(5) The initial performance test of the collection and control system equipment shall be accomplished within 180 days of control system startup.

To: Buss, Jeffrey[Buss.Jeffrey@epa.gov]
From: Steckel, Andrew
Sent: Fri 6/2/2017 8:02:48 PM
Subject: FW: Notification of Federal Stay | Municipal Solid Waste Landfill Rules

fyi

From: Arizona Department of Environmental Quality [mailto:AZDEQ@public.govdelivery.com]
Sent: Friday, June 2, 2017 12:19 PM
To: Steckel, Andrew <Steckel.Andrew@epa.gov>
Subject: Notification of Federal Stay | Municipal Solid Waste Landfill Rules

Dear Interested Party,

On May 31, 2017, the Environmental Protection Agency administratively stayed the federal rules requiring new emission guidelines and New Source Performance Standards for municipal solid waste landfills in their entirety for 90 days. These federal rules were previously promulgated at 40 CFR Part 60, Subpart Cf and 40 CFR Part 60, Subpart XXX.

Before the federal stay, the Arizona Department of Environmental Quality (ADEQ) amended R18-2-731 and R18-2-901 to incorporate by reference subparts Cf and XXX. ADEQ held a public comment period and hearing on these amendments and a proposed Clean Air Act Section 111(d) state plan on May 15, 2017. ADEQ appreciates the input received from stakeholders.

Due to the federal stay, ADEQ has suspended work on the rule amendments and the 111(d) plan until further notice. ADEQ will keep stakeholders informed throughout this process.

For more information, access the stay notice (82 FR 24878) on regulations.gov >

For questions or more information, please contact:
Natalie Muilenberg

Supervisor, Planning Unit, Air Quality Improvement Planning Section

(602) 771-1089 or nm3@azdeq.gov

Accessibility
To request an aid or service or to obtain this information in a different format contact: Ph 602-771-2215 | TTY/TTD Services: 7-1-1 | Email >

About ADEQ

Under the Environmental Quality Act of 1986, the Arizona State Legislature established the Arizona Department of Environmental Quality in 1987 as the state agency for protecting and enhancing public health and the environment of Arizona. For more information, visit http://www.azdeq.gov/.

QUESTIONS?
Contact Us

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This email was sent to steckel.andrew@epa.gov using GovDelivery, on behalf of: Arizona Department of Environmental Quality (ADEQ) · 1110 West Washington Street · Phoenix, AZ 85007 · 1-602-771-2300

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To: Buss, Jeffrey[Buss.Jeffrey@epa.gov]
From: Steckel, Andrew
Sent: Wed 5/31/2017 3:19:33 PM
Subject: FW: California State Plan for Compliance with sec. 111(d) and federal Landfill Emission Guidelines (40 CFR 60)
Submission of California State Plan.pdf
California State Plan for Municipal Waste.pdf

From: Lakin, Matt
Sent: Wednesday, May 31, 2017 8:07 AM
To: Zimpfer, Amy <Zimpfer.Amy@epa.gov>; Saracino, Ray <Saracino.Ray@epa.gov>; Nazmi, Niloufar <Nazmi.Niloufar@epa.gov>; Lee, Anita <Lee.Anita@epa.gov>; Machol, Ben <Machol.Ben@epa.gov>; BECKHAM, LISA <BECKHAM.LISA@EPA.GOV>
Cc: Steckel, Andrew <Steckel.Andrew@epa.gov>
Subject: FW: California State Plan for Compliance with sec. 111(d) and federal Landfill Emission Guidelines (40 CFR 60)

Sorry, I don't recall who the contact for this should be, so FYI.

Matthew Lakin, Ph.D.

Acting Deputy Director, Air Division
US EPA, Region 9 (AIR-1) | 75 Hawthorne St. | San Francisco, CA 94105
P: 415.972.3851 | E: Lakin.Matthew@epa.gov

From: Strauss, Alexis
Sent: Tuesday, May 30, 2017 5:05 PM
To: Lakin, Matt <Lakin.Matthew@epa.gov>; Scott, Jeff <Scott.Jeff@epa.gov>
Cc: Adams, Elizabeth <Adams.Elizabeth@epa.gov>
Subject: FW: California State Plan for Compliance with sec. 111(d) and federal Landfill Emission Guidelines (40 CFR 60)

Alexis Strauss

Acting Regional Administrator

E.P.A. Region 9

75 Hawthorne Street

San Francisco, CA 94105

415-972-3572

From: Vergara, Floyd@ARB [mailto:fvergara@arb.ca.gov]
Sent: Tuesday, May 30, 2017 4:59 PM
To: Strauss, Alexis <Strauss.Alexis@epa.gov>
Cc: R9.Info <R9.Info@epa.gov>; Ingram, Wes@ARB <wingram@arb.ca.gov>; Dilley, Shannon@ARB <Shannon.Dilley@arb.ca.gov>; Morris, Desirey@ARB <Desirey.Morris@arb.ca.gov>; Le, Tung@ARB <ttle@arb.ca.gov>
Subject: California State Plan for Compliance with sec. 111(d) and federal Landfill Emission Guidelines (40 CFR 60)

Acting Regional Administrator Strauss,

The California Air Resources Board is providing U.S. Environmental Protection Agency with its California State Plan to implement the emission guidelines and compliance timelines for municipal solid waste landfills under 40 CFR Part 60, Subpart Cf. The California State Plan is being provided pursuant to the requirements of 40 CFR Part 60, Subpart B. I have also mailed out a paper copy for your records, including a compact disc with appendices. The State compliance plan, appendices and all related information can be found at: https://www.arb.ca.gov/cc/landfills/landfills.htm under the "*California's State Plan*" section.

Please review the California State Plan and do not hesitate to contact me should you have any further questions.

Thank you.

Floyd V. Vergara, Esq., P.E.

Chief, Industrial Strategies Division

California Air Resources Board

(916) 324-0356

Floyd.Vergara@arb.ca.gov

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To: Wall, Steve[Wall.Steve@epa.gov]; Riedel, Brian[riedel.brian@epa.gov]
From: Buss, Jeffrey
Sent: Wed 2/15/2017 5:20:55 PM
Subject: FW: 111(d) Landfill Workgroup Conference Call
2-2017 Draft EG TECHNICAL GUIDANCE SMD.docx

Hello, sorry for the late notice – **Ex. 5 - Attorney Client**
Ex. 5 - Attorney Client

Jeff

From: Crooks, Renaldo@ARB [mailto:renaldo.crooks@arb.ca.gov]
Sent: Tuesday, February 14, 2017 4:33 PM
To: landfill-111d@capcoa.org
Cc: ARB (LMR) Landfill <ARBLMR@arb.ca.gov>; Dilley, Shannon@ARB <Shannon.Dilley@arb.ca.gov>; Griffin, Gerald <Gerald.Griffin@sdcounty.ca.gov>; BECKHAM, LISA <BECKHAM.LISA@EPA.GOV>
Subject: [Landfill - 111(d)] 111(d) Landfill Workgroup Conference Call

All -

Attached is the latest version of the 111(d) Landfill Guidance for your review and comment. This version incorporates comments that were received from the workgroup which consisted of: minor corrections to the text and references to the Emission Guidelines (Subpart Cf). The most significant changes were addressing specifications for active collection systems (see Section F(2)(a) of the Guidance) and compliance times (see Section H of the Guidance).

As a reminder, our next conference call is as follows:

Date: February 15, 2017

Time: 10:00 am – 11:00 am

Call in number: 1-866-765-6804

Participant code: (b) (6)

If you have any questions, please contact me via email or at (916) 327-5618.

Renaldo

To: Glass, Geoffrey[GLASS.GEOFFREY@EPA.GOV]
From: Narvaez, Madonna
Sent: Mon 12/4/2017 10:13:36 PM
Subject: Phone number corrected; more links added
2017 NWAD Meeting_air toxics_mn.pptx

Senior Air Toxics Advisor

Narvaez.madonna@epa.gov

US Environmental Protection Agency

1200 Sixth Avenue, Suite 900

MC: OAW-150

Seattle, WA 98101

206.553.2117

Our mission is to protect human health and the environment.

U.S. EPA Region 10 (@EPAnorthwest) | Twitter

https://twitter.com/EPAnorthwest

To: Glass, Geoffrey[GLASS.GEOFFREY@EPA.GOV]
From: Darrin.Pampaian@deq.idaho.gov
Sent: Mon 11/6/2017 3:40:29 PM
Subject: RE: Final Draft Agendas - Title V Workshop for Halloween and the Day After
2016 MSW Landfill Rule_Madonna Narvaez.pptx
2017 Kaizen Presentation_Mike Simon.pptx
Hardesty 2017 - EPA Title V Oversight.pptx
Hardesty 2017 - EPA Update.pptx
INL Presentation_Dan Pitman.pptx
Statement of Basis Content_Morrie Lewis.pptx
Title V 101 draft 2017_April Westby.pptx

Geoffrey,

Here is what I have.

Thanks for doing such a great job hosting the conference.

Darrin Pampaian, P.E.

Permits Coordinator

Idaho DEQ - Air Quality Division

1410 N. Hilton, Boise ID 83706-1255

ph: (208) 373-0587 fax: (208) 373-0340

Darrin.Pampaian@deq.idaho.gov

From: Rosa, Genine [mailto:Grosa@washoecounty.us]
Sent: Monday, November 06, 2017 8:27 AM
To: Glass, Geoffrey; Darrin Pampaian
Cc: Zach Klotovich
Subject: RE: Final Draft Agendas - Title V Workshop for Halloween and the Day After

Hi Geoffrey,

Thank you for the Title V workshop last week! It was nice to meet you all and be able to have access to so many folks with so much knowledge!

Will the slides be made available for everyone who attended?

Thank you,

Genine Rosa, MS

Environmental Engineer II

O: (775) 784-7204

WASHOE COUNTY HEALTH DISTRICT
ENHANCING QUALITY OF LIFE
Public Health

Please consider the environment before printing this e-mail.

From: Glass, Geoffrey [mailto:GLASS.GEOFFREY@EPA.GOV]
Sent: Thursday, October 26, 2017 3:14 PM
To: Darrin.Pampaian@deq.idaho.gov
Cc: Zach.Klotovich@deq.idaho.gov
Subject: Final Draft Agendas - Title V Workshop for Halloween and the Day After

People:

What you have before you are the final draft agendas for the Title V Workshop to be held in Boise on Halloween and the day after Halloween. I cannot promise that these will be the final agendas, but they are the final draft agendas.

See you in Boise.

Feel free to wear a costume on Halloween Day (regulators only). I suggest business casual for day two, which is not Halloween and non-regulators will be there.

Be excellent to each other.

Geoffrey L. Glass, MSChE
Air Permit Engineer
Stationary Source Unit

US EPA Region 10
1200 6th Avenue, Suite 900
Seattle, WA 98101

206.553.1847 – glass.geoffrey@epa.gov

2016 Municipal Solid Waste Landfill Rule

Madonna Narvaez
USEPA Region 10
Stationary Source Unit

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Outline

- Rule History
- Compliance
- Rule Summary
- Additional Resources

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Rule History

- On July 14, 2016, EPA issued NSPS Subpart XXX to reduce emissions of methane-rich landfill gas from new, modified and reconstructed MSW landfills, updating standards last issued in 1996
- In a separate action, EPA also issued revised guidelines for reducing emissions from existing MSW landfills, updating the previous Emissions Guidelines, which also were issued in 1996, 40 C.F.R. Part 60, Subpart Cf.

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Rule History

- On October 27, 2016, EPA received petitions to reconsider the rules.
- During a reconsideration, the Administrator may stay the effective date of the rule up to 3 months.
- On May 5, 2017, the Administrator announced a reconsideration of the following topics:

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Basis for Reconsideration

- (1) Tier 4 surface emission monitoring;
- (2) annual liquids reporting;
- (3) corrective action timeline procedures;
- (4) overlapping applicability with other rules;
- (5) the definition of cover penetration; and
- (6) design plan approval.

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Reconsideration

- We determined that the tier 4 surface emissions monitoring (SEM) issues raised in the petition for reconsideration met those criteria.
- The proposed rule included tier 4 SEM as an optional monitoring method; however, the final rule imposed restrictions on the use of tier 4 SEM, that were not included in the proposal.
- While the restrictions are appropriate in light of the potential impact of the results of tier 4 SEM, we recognize that they were added without the benefit of public comment.

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Compliance

- The rules were then stayed until August 29, 2017.
- The stay has expired – the 2016 rules are now effective.
- EPA is still in the process of reconsidering the rules based on the requests.
- We are aligning the reconsiderations with the court-ordered deadline to complete the risk and technology review (RTR) of the National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 C.F.R. Part 63, Subpart WWW, March 13, 2020

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Implications for State Plans

- State Plans were due May 30, 2017
- Because of the reconsideration, we are not prioritizing the review of state plans.
- Neither are we working on a Federal Plan for states that failed to submit a state plan -
  - States that do not submit a state plan are not subject to sanctions, such as loss of federal highway funds
  - The Agency view is that states should not be concerned regarding sanctions.

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Rule Summary

- Clarifications about the uses of treated landfill gas –
  - Final rules make clear that treated landfill gas may be used as fuel for stationay engines as well as other beneficial purposes
    - Vehicle fuel
    - Production of high-Btu gas for pipeline injection or as
    - Raw material for chemical manufacturing
  - The final rules define treated landfill gas in a way that promotes beneficial use

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Rule Summary (cont'd)

- Landfills that demonstrate surface emissions of methane are less than 500 parts per million do not have to install controls.
- Quarterly monitoring of surface emissions of methane where waste has been placed and installation of a gas-collection system.
- Allows use of optional, site-specific method for determining when a landfill that must install and operate a gas-collection-and-control system.

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Additional Resources

- https://www.epa.gov/stationary-sources-air-pollution/municipal-solid-waste-landfills-new-source-performance-standards#additional-resources
- Includes links to https://www.epa.gov/stationary-sources-air-pollution/responses-public-comments-epas-standards-performance-municipal
- Example Moisture Mass Balance Calculations for Bioreactor Landfills

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Region 10 Contacts

- For questions on facilities in Alaska, Idaho and Oregon –
  - Madonna Narvaez, narvaez.madonna@epa.gov; 206-553-2117
- Washington facilities –
  - Katie Owens, owens.katharine@epa.gov; 206-553-1023

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To: Martell, P John (DOH)[John.Martell@DOH.WA.GOV]; Schmidt, John W (DOH)[John.Schmidt@DOH.WA.GOV]
Cc: Hardesty, Doug[Hardesty.Doug@epa.gov]
From: Glass, Geoffrey
Sent: Tue 11/14/2017 12:47:01 AM
Subject: Follow-up to Title V Workshop
2016 MSW Landfill Rule_Madonna Narvaez.pptx
2017 Kaizen Presentation_Mike Simon.pptx
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Seattle, WA 98101

206.553.1847 – glass.geoffrey@epa.gov

To: lauren.whybrew@orcaa.org[lauren.whybrew@orcaa.org]
Cc: Hardesty, Doug[Hardesty.Doug@epa.gov]
From: Glass, Geoffrey
Sent: Tue 11/14/2017 12:52:40 AM
Subject: Follow-up to Title V Workshop
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2017 Kaizen Presentation_Mike Simon.pptx
Hardesty 2017 - EPA Title V Oversight.pptx
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206.553.1847 – glass.geoffrey@epa.gov

To: Agata McIntyre[AgataM@nwcleanairwa.gov]
Cc: Hardesty, Doug[Hardesty.Doug@epa.gov]
From: Glass, Geoffrey
Sent: Tue 11/14/2017 12:50:49 AM
Subject: Follow-up to Title V Workshop
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To: Darrin.Pampaian@deq.idaho.gov[Darrin.Pampaian@deq.idaho.gov]; michael.simon@deq.idaho.gov[michael.simon@deq.idaho.gov]
Cc: Hardesty, Doug[Hardesty.Doug@epa.gov]
From: Glass, Geoffrey
Sent: Tue 11/14/2017 12:28:31 AM
Subject: Follow-up to Title V Workshop
2016 MSW Landfill Rule_Madonna Narvaez.pptx
2017 Kaizen Presentation_Mike Simon.pptx
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1200 6th Avenue, Suite 900
Seattle, WA 98101

206.553.1847 – glass.geoffrey@epa.gov

To: Gent, Philip (ECY)[pgen461@ECY.WA.GOV]; Bauder, Lilyann (ECY)[liba461@ECY.WA.GOV]
Cc: Hardesty, Doug[Hardesty.Doug@epa.gov]
From: Glass, Geoffrey
Sent: Tue 11/14/2017 12:45:07 AM
Subject: Follow-up to Title V Workshop
2016 MSW Landfill Rule_Madonna Narvaez.pptx
2017 Kaizen Presentation_Mike Simon.pptx
Hardesty 2017 - EPA Title V Oversight.pptx
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To: Germain, Grace (DEC)[grace.germain@alaska.gov]
Cc: Plosay, James R (DEC)[jim.plosay@alaska.gov]; Hardesty, Doug[Hardesty.Doug@epa.gov]
From: Glass, Geoffrey
Sent: Tue 11/14/2017 12:23:51 AM
Subject: Follow-up to Title V Workshop
2016 MSW Landfill Rule_Madonna Narvaez.pptx
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Geoffrey L. Glass, MSChE
Environmental Engineer
Stationary Source Unit

US EPA Region 10
1200 6th Avenue, Suite 900
Seattle, WA 98101

206.553.1847 – glass.geoffrey@epa.gov

To: Wess Safford[Wess@swcleanair.org]
Cc: Hardesty, Doug[Hardesty.Doug@epa.gov]
From: Glass, Geoffrey
Sent: Tue 11/14/2017 12:48:52 AM
Subject: Follow-up to Title V Workshop
2016 MSW Landfill Rule_Madonna Narvaez.pptx
2017 Kaizen Presentation_Mike Simon.pptx
Hardesty 2017 - EPA Title V Oversight.pptx
Hardesty 2017 - EPA Update.pptx
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1200 6th Avenue, Suite 900
Seattle, WA 98101

206.553.1847 – glass.geoffrey@epa.gov

To: stephanie.ogle@ecy.wa.gov[stephanie.ogle@ecy.wa.gov]
Cc: Hardesty, Doug[Hardesty.Doug@epa.gov]
From: Glass, Geoffrey
Sent: Tue 11/14/2017 12:43:12 AM
Subject: Follow-up to Title V Workshop
2016 MSW Landfill Rule_Madonna Narvaez.pptx
2017 Kaizen Presentation_Mike Simon.pptx
Hardesty 2017 - EPA Title V Oversight.pptx
Hardesty 2017 - EPA Update.pptx
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Environmental Engineer
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1200 6th Avenue, Suite 900
Seattle, WA 98101

206.553.1847 – glass.geoffrey@epa.gov

To: dkni461@ecy.wa.gov[dkni461@ecy.wa.gov]
Cc: Hardesty, Doug[Hardesty.Doug@epa.gov]
From: Glass, Geoffrey
Sent: Tue 11/14/2017 12:41:22 AM
Subject: Follow-up to Title V Workshop
2016 MSW Landfill Rule_Madonna Narvaez.pptx
2017 Kaizen Presentation_Mike Simon.pptx
Hardesty 2017 - EPA Title V Oversight.pptx
Hardesty 2017 - EPA Update.pptx
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Geoffrey L. Glass, MSChE
Environmental Engineer
Stationary Source Unit

US EPA Region 10
1200 6th Avenue, Suite 900
Seattle, WA 98101

206.553.1847 – glass.geoffrey@epa.gov

To: Beth Erickson[beth@LRAPA.ORG]
From: Glass, Geoffrey
Sent: Mon 11/20/2017 4:59:22 PM
Subject: Follow-up to Title V Workshop
2016 MSW Landfill Rule_Madonna Narvaez.pptx
2017 Kaizen Presentation_Mike Simon.pptx
Hardesty 2017 - EPA Title V Oversight.pptx
Hardesty 2017 - EPA Update.pptx
INL Presentation_Dan Pitman.pptx
Meyer 2017 - Syn Minor Permitting.pptx
Statement of Basis Content_Morrie Lewis.pptx
Title V 101 draft 2017_April Westby.pptx
Autorun Hanford for EPA Conference.ppsx
Viking Peapod 1.JPG

Beth:

I'm sorry this is late. I woke up this morning worried that I forgot to send this to someone and, it turns out I was right.

As an apology for my thoughtlessness, you get a bonus feature: a picture of one of my previous Halloween costumes.

Actual forwarded message begins here …

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1200 6th Avenue, Suite 900
Seattle, WA 98101

206.553.1847 – glass.geoffrey@epa.gov

To: Haller, Lynnette A. (ECY)[LHUL461@ECY.WA.GOV]
Cc: Hardesty, Doug[Hardesty.Doug@epa.gov]
From: Glass, Geoffrey
Sent: Tue 11/14/2017 12:39:25 AM
Subject: Follow-up to Title V Workshop
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Seattle, WA 98101

206.553.1847 – glass.geoffrey@epa.gov

To: denise.koch@alaska.gov[denise.koch@alaska.gov]; Tiffany.Floyd@deq.idaho.gov[Tiffany.Floyd@deq.idaho.gov]; SMITH Mark A[Mark.A.SMITH@state.or.us]; STOCUM Jeffrey[Jeffrey.G.STOCUM@state.or.us]; merlyn@lrapa.org[merlyn@lrapa.org]; scla461@ecy.wa.gov[scla461@ecy.wa.gov]; Taylor, Kathy (ECY)[ktay461@ECY.WA.GOV]; robin.priddy@bentoncleanair.org[robin.priddy@bentoncleanair.org]; mark@nwcleanair.org[mark@nwcleanair.org]; fran.mcnair@orcaa.org[fran.mcnair@orcaa.org]; craigk@pscleanair.org[craigk@pscleanair.org]; joliver@SpokaneCleanAir.org[joliver@SpokaneCleanAir.org]; uri@swcleanair.org[uri@swcleanair.org]; keith@yrcaa.org[keith@yrcaa.org]
Cc: Hamlin, Tim[Hamlin.Tim@epa.gov]
From: Glass, Geoffrey
Sent: Thur 12/7/2017 7:05:15 PM
Subject: RE: NWAD Meeting - Follow-up
01 Permitting NWAD 2017.pptx
02 Air Toxics NWAD 2017.pptx
03 Grants Funding NWAD 2017.xls
04 Mobile Diesel NWAD 2017.pptx
05 Exceptional Events EPA NWAD 2017.pptx
05 Exceptional Events LRAPA NWAD 2017.ppt
06 SIP Updates NWAD 2017.pptx

Here is the first batch of slides and handouts. Some of the presentations are large, so I will do this in several emails.

This message should have seven attachments: one Excel worksheet and six Power Point presentations.

From: Glass, Geoffrey
Sent: Thursday, December 07, 2017 9:12 AM
To: denise.koch@alaska.gov; 'Tiffany.Floyd@deq.idaho.gov' <Tiffany.Floyd@deq.idaho.gov>; SMITH Mark A <Mark.A.SMITH@state.or.us>; 'STOCUM Jeffrey' <Jeffrey.G.STOCUM@state.or.us>; merlyn@lrapa.org; scla461@ecy.wa.gov; 'Taylor, Kathy (ECY)' <ktay461@ECY.WA.GOV>; robin.priddy@bentoncleanair.org; 'mark@nwcleanair.org' <mark@nwcleanair.org>; fran.mcnair@orcaa.org; craigk@pscleanair.org; 'joliver@SpokaneCleanAir.org' <joliver@SpokaneCleanAir.org>; 'uri@swcleanair.org' <uri@swcleanair.org>; 'keith@yrcaa.org' <keith@yrcaa.org>
Cc: Hamlin, Tim <Hamlin.Tim@epa.gov>
Subject: NWAD Meeting - Follow-up

Greetings:

It's the first week in December and there is a strange, glowing yellow orb hovering ominously in the sky over Seattle. Although I don't understand what we have done to make it angry, I am grateful that it leaves us to dream in peace at night.

Back in November, I was informed that Don Dossett would be retiring at the end of the month and that I would be responsible for facilitating the Northwest Air Directors meeting. With less than a month to prepare I was given the following: a bunch of forwarded emails, last year's agenda, an email list, and a link to a local restaurant's lunch menu. (Fortunately, I also had the support of several experienced co-workers.)

I would like to thank everyone who participated in the Northwest Air Directors meeting earlier this week. Despite the challenges, I learned a lot and had a good time. I hope you feel the same way.

As much as I enjoyed the meeting, it felt pretty rushed, especially on the second day. A couple of people told me that previous meetings felt the same way. It seems like there's a lot of room for improvement.

To understand how to meet your needs better, I will be sending a survey shortly. Feel free to speak candidly in your responses. No one will see them except me. Then, I will aggregate your responses and share them with you as a group (to make sure I'm not misrepresenting your positions) before I share the results with Tim and the rest of the management team. I hope the result is a smoother, more effective, more efficient meeting next November.

Expect to receive the survey later today.

In addition, I owe you some slides. You will receive a lot of presentation slides, including some slides you didn't actually see during the meeting. I need to rename and reorganize them so it is clear which slides go with which presentation, but you should start receiving them later today as well.

To tide you over until you receive these other items, I have attached some pictures of the cakes from Don's retirements party. I pretended that the wrong cakes were delivered, which people believed for about 30 seconds.

Also, here is the link to LRAPA's NASA video:
https://www.facebook.com/permalink.php?story_fbid=848518548643047&id=310930345735206

Is LRAPA still doing Waffle Wednesday? Can your office beat Waffle Wednesday?

Geoffrey L. Glass, MSChE
Environmental Engineer
Stationary Source Unit

US EPA Region 10
1200 6th Avenue, Suite 900
Seattle, WA 98101

206.553.1847 – glass.geoffrey@epa.gov

To: Rosa, Genine[Grosa@washoecounty.us]
Cc: Hardesty, Doug[Hardesty.Doug@epa.gov]
From: Glass, Geoffrey
Sent: Tue 11/14/2017 12:58:11 AM
Subject: Follow-up to Title V Workshop
2016 MSW Landfill Rule_Madonna Narvaez.pptx
2017 Kaizen Presentation_Mike Simon.pptx
Hardesty 2017 - EPA Title V Oversight.pptx
Hardesty 2017 - EPA Update.pptx
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Statement of Basis Content_Morrie Lewis.pptx
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2. Distribute a short survey about your impressions of the workshop,

3. Get your input on upcoming workshops, and

4. Clarify some information from the workshop.

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Please respond to this email by **Friday, December 1**.

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1. On a scale of 1-5 (five being best), what did you think about the facilities where the workshop was held?

2. What did you like best about the facilities?

3. What did you like least about the facilities?

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5. We had one full day of “regulators only” and a half day open to everyone. Which of the following statements best represents your opinion? (pick as many as apply)

a. The entire workshop should be regulators only

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c. This is about right

d. We can make the open session longer (without making the “regulators only” session shorter)

e. We can make the open session longer (even if it means the “regulators only” session gets shorter)

f. Let’s just open up the whole thing

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6. For each of the following, please state whether you think we should spend more time on this topic, less time, or if the amount of time was about right (Note: if you thought the conference was too long, but you want more of everything, you may have to change some of your answers):

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c. Permit Content (more / less / about right)

d. Statements of Basis (more / less / about right)

e. Compliance (more / less / about right)

f. Synthetic Minor Permitting (more / less / about right)

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- 2019 – Montana (not sure of the city)
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Option B: We could wait to hold a workshop at the 2020 PNWIS conference in Yakima. Yakima is centrally located. Unfortunately, if we did this, it would be three years before the next workshop.

Option C: If you don't want to wait three years for the next workshop and you can't justify the cost and travel time of sending staff to Montana. We can hold our own workshop, independent of PNWIS, in 18 to 24 months (spring or fall of 2019) – probably in a location along the Seattle-Portland corridor so maybe Alaska can send a couple people.

Please vote on one of the following options:

Option A: our agency is willing to go to Montana in 2019

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Option C: Let's do it ourselves in the spring or fall of 2019

Clarification

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Note that streamlining is voluntary. If there are repeated violations of a streamlined limit, a regulatory authority can reopen a permit for cause to either remove the streamlined limit and replace the subsumed requirements or add additional monitoring.

Thank you

Geoffrey L. Glass, MSChE
Environmental Engineer
Stationary Source Unit

US EPA Region 10
1200 6th Avenue, Suite 900
Seattle, WA 98101

206.553.1847 – glass.geoffrey@epa.gov

To: Stuart, Ron (ECY)[rstu461@ECY.WA.GOV]
Cc: Hardesty, Doug[Hardesty.Doug@epa.gov]
From: Glass, Geoffrey
Sent: Tue 11/14/2017 12:37:36 AM
Subject: Follow-up to Title V Workshop
2016 MSW Landfill Rule_Madonna Narvaez.pptx
2017 Kaizen Presentation_Mike Simon.pptx
Hardesty 2017 - EPA Title V Oversight.pptx
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Please respond to this email by **Friday, December 1**.

Survey: *You may leave an answer blank if you don't feel strongly about it.* (feel free to add more explanation anywhere in this survey)

1. On a scale of 1-5 (five being best), what did you think about the facilities where the workshop was held?

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f. Let’s just open up the whole thing

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d. Statements of Basis (more / less / about right)

e. Compliance (more / less / about right)

f. Synthetic Minor Permitting (more / less / about right)

7. Are there any topics you would like us to cover that we didn't cover?

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Option C: If you don't want to wait three years for the next workshop and you can't justify the cost and travel time of sending staff to Montana. We can hold our own workshop, independent of PNWIS, in 18 to 24 months (spring or fall of 2019) – probably in a location along the Seattle-Portland corridor so maybe Alaska can send a couple people.

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Thank you

Geoffrey L. Glass, MSChE
Environmental Engineer
Stationary Source Unit

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1200 6th Avenue, Suite 900
Seattle, WA 98101

206.553.1847 – glass.geoffrey@epa.gov

To: awestby@spokanecleanair.org[awestby@spokanecleanair.org]
Cc: Hardesty, Doug[Hardesty.Doug@epa.gov]
From: Glass, Geoffrey
Sent: Tue 11/14/2017 12:56:23 AM
Subject: Follow-up to Title V Workshop
2016 MSW Landfill Rule_Madonna Narvaez.pptx
2017 Kaizen Presentation_Mike Simon.pptx
Hardesty 2017 - EPA Title V Oversight.pptx
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Geoffrey L. Glass, MSChE
Environmental Engineer
Stationary Source Unit

US EPA Region 10
1200 6th Avenue, Suite 900
Seattle, WA 98101

206.553.1847 – glass.geoffrey@epa.gov

To: EISELE Michael[michael.eisele@state.or.us]; WHITE-FALLON Karen[karen.white-fallon@state.or.us]
Cc: Hardesty, Doug[Hardesty.Doug@epa.gov]
From: Glass, Geoffrey
Sent: Tue 11/14/2017 12:35:35 AM
Subject: Follow-up to Title V Workshop
2016 MSW Landfill Rule_Madonna Narvaez.pptx
2017 Kaizen Presentation_Mike Simon.pptx
Hardesty 2017 - EPA Title V Oversight.pptx
Hardesty 2017 - EPA Update.pptx
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Environmental Engineer
Stationary Source Unit

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1200 6th Avenue, Suite 900
Seattle, WA 98101

206.553.1847 – glass.geoffrey@epa.gov

To: Carole Cenci[CaroleC@pscleanair.org]
Cc: Hardesty, Doug[Hardesty.Doug@epa.gov]
From: Glass, Geoffrey
Sent: Tue 11/14/2017 12:54:32 AM
Subject: Follow-up to Title V Workshop
2016 MSW Landfill Rule_Madonna Narvaez.pptx
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Upcoming Workshops

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- 2018 – Nanaimo, BC
- 2019 – Montana (not sure of the city)
- 2020 – Yakima

Option A: If we stick with the two-year schedule, the next workshop would be held in the fall (October or November) 2019 at the PNWIS conference in Montana. Given the choice, I think many of us would like to go to Montana. However, it is not a central location and some agencies may not be able to justify sending as many staff members as they would otherwise be able to send.

Option B: We could wait to hold a workshop at the 2020 PNWIS conference in Yakima. Yakima is centrally located. Unfortunately, if we did this, it would be three years before the next workshop.

Option C: If you don't want to wait three years for the next workshop and you can't justify the cost and travel time of sending staff to Montana. We can hold our own workshop, independent of PNWIS, in 18 to 24 months (spring or fall of 2019) – probably in a location along the Seattle-Portland corridor so maybe Alaska can send a couple people.

Please vote on one of the following options:

Option A: our agency is willing to go to Montana in 2019

Option B: we prefer to wait until 2020 and go to Yakima

Option C: Let's do it ourselves in the spring or fall of 2019

Clarification

I think some overly simple statements about enforcement of streamlined emission limits were made. I would like to expand on the subject here.

When a source demonstrates compliance with a streamlined emission limit, it demonstrates compliance with all of the subsumed requirements. If a source exceeds a streamlined emission limit, it is required to report an exceedance of the streamlined limit and keep records of the required monitoring (usually the monitoring associated with the most stringent limit). However, the regulatory authority may determine that the source was out of compliance with any of the subsumed requirements if it has credible evidence available to make such determinations.

Note that streamlining is voluntary. If there are repeated violations of a streamlined limit, a regulatory authority can reopen a permit for cause to either remove the streamlined limit and replace the subsumed requirements or add additional monitoring.

Thank you

Geoffrey L. Glass, MSChE
Environmental Engineer
Stationary Source Unit

US EPA Region 10
1200 6th Avenue, Suite 900
Seattle, WA 98101

206.553.1847 – glass.geoffrey@epa.gov

To: ORMAN Michael[michael.orman@state.or.us]; MCMORRINE Edith[edith.mcmorrine@state.or.us]
Cc: Hardesty, Doug[Hardesty.Doug@epa.gov]
From: Glass, Geoffrey
Sent: Tue 11/14/2017 12:33:44 AM
Subject: Follow-up to Title V Workshop
2016 MSW Landfill Rule_Madonna Narvaez.pptx
2017 Kaizen Presentation_Mike Simon.pptx
Hardesty 2017 - EPA Title V Oversight.pptx
Hardesty 2017 - EPA Update.pptx
INL Presentation_Dan Pitman.pptx
Meyer 2017 - Syn Minor Permitting.pptx
Statement of Basis Content_Morrie Lewis.pptx
Title V 101 draft 2017_April Westby.pptx

Thank you for taking part in the title V workshop in Boise. I am sending one message to each agency/office (the Portland office) that participated in the workshop in order to do the following:

1. Share the presentation slides from the meeting,

2. Distribute a short survey about your impressions of the workshop,

3. Get your input on upcoming workshops, and

4. Clarify some information from the workshop.

Look at the "To" and "Cc" lines on this email. You are the only one or two people in your agency/office to receive this message. Please distribute this message to anyone in your agency/office who went to the workshop or may be interested and solicit their input on the survey and the questions about upcoming workshops.

Please respond to this email by **Friday, December 1**.

Survey: *You may leave an answer blank if you don't feel strongly about it.* (feel free to add more explanation anywhere in this survey)

1. On a scale of 1-5 (five being best), what did you think about the facilities where the workshop was held?

2. What did you like best about the facilities?

3. What did you like least about the facilities?

4. What did you think about the overall length of the workshop? (Too long, too short, about right)

5. We had one full day of “regulators only” and a half day open to everyone. Which of the following statements best represents your opinion? (pick as many as apply)

a. The entire workshop should be regulators only

b. The open session should be shorter

c. This is about right

d. We can make the open session longer (without making the “regulators only” session shorter)

e. We can make the open session longer (even if it means the “regulators only” session gets shorter)

f. Let’s just open up the whole thing

g. I have another idea which I am going to write in the blank space below

6. For each of the following, please state whether you think we should spend more time on this topic, less time, or if the amount of time was about right (Note: if you thought the conference was too long, but you want more of everything, you may have to change some of your answers):

a. Title V 101 (more / less / about right)

b. EPA updates/Regulations (more / less / about right)

c. Permit Content (more / less / about right)

d. Statements of Basis (more / less / about right)

e. Compliance (more / less / about right)

f. Synthetic Minor Permitting (more / less / about right)

7. Are there any topics you would like us to cover that we didn't cover?

8. Are there any topics we covered that were of little value to you?

9. What did you like best about the workshop?

10. What did you like least about the workshop?

Upcoming Workshops

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the next workshop.

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Thank you

Geoffrey L. Glass, MSChE
Environmental Engineer
Stationary Source Unit

US EPA Region 10
1200 6th Avenue, Suite 900
Seattle, WA 98101

206.553.1847 – glass.geoffrey@epa.gov

To: Buss, Jeffrey[Buss.Jeffrey@epa.gov]; BECKHAM, LISA[BECKHAM.LISA@EPA.GOV]; Saracino, Ray[Saracino.Ray@epa.gov]
Cc: Zimpfer, Amy[Zimpfer.Amy@epa.gov]; Machol, Ben[Machol.Ben@epa.gov]; Law, Nicole[Law.Nicole@epa.gov]; Gerardo Rios (Rios.Gerardo@epa.gov)[Rios.Gerardo@epa.gov]
From: Kurpius, Meredith
Sent: Fri 9/8/2017 5:02:03 PM
Subject: FW: Q from ADEQ on MSW Landfill NSPS for methane

Jeff/Ray/Lisa,

I got a call today from Brian Parkee at Arizona DEQ asking whether they should continue working on the Municipal Solid Waste Landfill Rule now that the stay has ended. I assume he is referring to the NSPS for methane – the stay ended on 8/22. Here is the link to EPA's webpage on this:

https://www.epa.gov/stationary-sources-air-pollution/municipal-solid-waste-landfills-new-source-performance-standards

It seems reasonable to suggest that they hold off on additional work until we hear something further. Would you agree? Thanks for your input!

Meredith

From: Machol, Ben
Sent: Friday, September 8, 2017 9:13 AM
To: Law, Nicole <Law.Nicole@epa.gov>; Zimpfer, Amy <Zimpfer.Amy@epa.gov>; Kurpius, Meredith <Kurpius.Meredith@epa.gov>
Cc: BECKHAM, LISA <BECKHAM.LISA@EPA.GOV>; Rios, Gerardo <Rios.Gerardo@epa.gov>; Steckel, Andrew <Steckel.Andrew@epa.gov>; BANDROWSKI, MIKE <Bandrowski.Mike@epa.gov>; Buss, Jeffrey <Buss.Jeffrey@epa.gov>
Subject: RE: Q from ADEQ on MSW Landfill NSPS for methane

Jeff has indeed been tracking this one for Colleen. He may have the latest from HQ - I didn't see anything on our website but the following article doesn't look promising:

UPDATE: EPA offers 'no updates at this time' on NSPS, EG landfill rules

Cole Rosengren

@ColeRosengren

Published

Sept. 1, 2017

UPDATE, Sept. 1: The EPA's 90-day stay for the New Source Performance Standards and Emissions Guidelines rules expired on Aug. 29. Details are scarce about what happens next. Industry sources remain in the dark and, if the EPA has further information, it isn't sharing.

"We have no updates at this time," wrote an agency spokesperson via email when asked where the process stood.

Depending on how the agency proceeds this could play out multiple ways. The rules could be allowed to stand as is, in which case state plans would now be late. The rules could be allowed to stay with deadlines extended by at least 90 days, in turn pushing back other deadlines set for later in the process. The EPA could also announce further intentions to try and repeal some or all of the rules.

Due to an ongoing legal challenge by the Natural Resources Defense Council (NRDC), the EPA will eventually have to provide an update to the U.S. Court of Appeals for the D.C. Circuit if nothing else. Following the initial motion in early August, both parties have filed multiple responses — the most recent from NRDC on Aug. 28 — and are now awaiting further direction from the court.

UPDATE, May 24: The Environmental Protection Agency confirmed a 90-day administrative stay on New Source Performance Standards (NSPS) and Emissions Guidelines (EG) for municipal solid waste landfills in a May 23 announcement. The agency also released a May 5 letter it sent to Waste Management, Republic Services, NWRA and SWANA recognizing their October 2016 petition for reconsideration of the rules.

"EPA is continuing to ensure that the public has the opportunity to comment on agency actions," said Administrator Scott Pruitt in a statement. "Reconsidering portions of the landfill rules will give stakeholders the opportunity to review these requirements, assess economic impacts and provide feedback to the agency through the reconsideration process."

The EPA estimated that it would cost more than $100 million per year to implement the necessary changes required by these rules and has confirmed that compliance is not required during the 90-day stay.

Dive Brief:

•The Environmental Protection Agency (EPA) plans to issue a 90-day administrative stay on two key Obama-era landfill rules, "Standards of Performance for Municipal Solid Waste Landfills" and "Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills." This was conveyed in a letter to the National Waste & Recycling Association (NWRA) and Solid Waste Association of North America (SWANA) and announced in a joint release from the two organizations.

•The EPA letter indicated it plans to reconsider the following topics as they relate to the two rules: tier 4 surface emission monitoring, annual liquids reporting, corrective action timeline procedures, overlapping applicability with other rules, the definition of cover penetration and design plan approval.

Ben Machol, P.E.

Manager, Technology & Partnerships Office

U.S. Environmental Protection Agency, Region 9

75 Hawthorne St. (AIR-9)

San Francisco, CA 94105

machol.ben@epa.gov

(415) 972-3770

From: Law, Nicole
Sent: Friday, September 08, 2017 8:55 AM
To: Zimpfer, Amy <Zimpfer.Amy@epa.gov>; Kurpius, Meredith <Kurpius.Meredith@epa.gov>
Cc: Machol, Ben <Machol.Ben@epa.gov>; BECKHAM, LISA <BECKHAM.LISA@EPA.GOV>; Rios, Gerardo <Rios.Gerardo@epa.gov>; Steckel, Andrew <Steckel.Andrew@epa.gov>; BANDROWSKI, MIKE <Bandrowski.Mike@epa.gov>; Buss, Jeffrey <Buss.Jeffrey@epa.gov>
Subject: RE: Q from ADEQ on MSW Landfill NSPS for methane

I also think Lisa Beckham and Jeff Buss?

From: Zimpfer, Amy
Sent: Friday, September 8, 2017 8:52 AM
To: Kurpius, Meredith <Kurpius.Meredith@epa.gov>
Cc: Machol, Ben <Machol.Ben@epa.gov>; BECKHAM, LISA <BECKHAM.LISA@EPA.GOV>; Rios, Gerardo <Rios.Gerardo@epa.gov>; Steckel, Andrew <Steckel.Andrew@epa.gov>; Law, Nicole <Law.Nicole@epa.gov>; BANDROWSKI, MIKE <Bandrowski.Mike@epa.gov>
Subject: Re: Q from ADEQ on MSW Landfill NSPS for methane

Ray has worked this issue some.

Amy Zimpfer, Associate Director

USEPA, Region 9, Air Division

zimpfer.amy@epa.gov

+1 415.947.4146

Sent from my iPhone

On Sep 8, 2017, at 8:50 AM, Kurpius, Meredith <Kurpius.Meredith@epa.gov> wrote:

I got a call today from Brian Parkee at Arizona DEQ asking whether they should continue working on the Municipal Solid Waste Landfill Rule now that the stay has ended. I assume he is referring to the NSPS for methane – the stay ended on 8/22. Here is the link to EPA's webpage on this:

https://www.epa.gov/stationary-sources-air-pollution/municipal-solid-waste-landfills-new-source-performance-standards

Is there someone in the Air Division who has knowledge of this topic? Thanks!

~~~~~~

Meredith Kurpius

Associate Director, EPA Region 9, Air Division

Kurpius.meredith@epa.gov

415-947-4534 (o); 415-638-3413 (m)

75 Hawthorne St., AIR-1, San Francisco, CA 94105
~~~~~~

To: Lohrke, Gregory[lohrke.gregory@epa.gov]
From: Ackerlund, Julie
Sent: Thur 6/1/2017 1:59:08 PM
Subject: RE: Stay of NSPS and EG for MSW Landfills

Hi Greg,

Thanks for the update. I look forward to learning what results from the 90-day stay on the MSW rules. I will appreciate learning any new information you hear as we proceed through this process.

Regards,

Julie

From: Lohrke, Gregory [mailto:lohrke.gregory@epa.gov]
Sent: Wednesday, May 31, 2017 5:39 PM
To: Ackerlund, Julie
Subject: Stay of NSPS and EG for MSW Landfills

Julie,

I am writing to inform you of a stay, for 90 days pending reconsideration, of the municipal solid waste landfill NSPS and EG amendments and revisions promulgated last year. The notice of a stay was published in today's Federal Register (82 FR 24878). Electronic copies of the Federal Register notice from today and associated documents may be found on the EPA's website: https://www.epa.gov/stationary-sources-air-pollution/municipal-solid-waste-landfills-new-source-performance-standards. Unfortunately, I have no further definitive information on how the current stay affects state plan submittal deadlines, other than pushing them until August, or whether the 'pending reconsideration' of the final rule will be initiated during the course of the 90-day stay. For questions left unanswered by the documents found on EPA's website, do not hesitate to direct inquiries to either myself, or the contact given in the 'For Further Information Contact' section of today's FR notice. Additionally, I will update Montana DEQ on any news on this issue as it develops.

Sincerely,

Gregory Lohrke

U.S. EPA Region 8 | Indoor Air, Toxics & Transportation Unit

(303) 312-6396

To: Lohrke, Gregory[lohrke.gregory@epa.gov]
Cc: Hackett - CDPHE, Sean[sean.hackett@state.co.us]
From: Martland - CDPHE, Leah
Sent: Thur 6/1/2017 1:44:01 PM
Subject: Re: Stay of NSPS and EG for MSW Landfill Emissions

Gregory,

Thank you for the update. At the moment, we are holding our state plan concerning Subpart Cf while this stay and/or reconsideration plays out. We would appreciate any information concerning state plan submittal deadlines as soon as it is available.

Sincerely,

Leah

On Wed, May 31, 2017 at 5:33 PM, Lohrke, Gregory <lohrke.gregory@epa.gov> wrote:

Sean and Leah,

I am writing to inform you of a stay, for 90 days pending reconsideration, of the municipal solid waste landfill NSPS and EG amendments and revisions promulgated last year. The notice of a stay was published in today's Federal Register (82 FR 24878). Electronic copies of the Federal Register notice from today and associated documents may be found on the EPA's website: https://www.epa.gov/stationary-sources-air-pollution/municipal-solid-waste-landfills-new-source-performance-standards. Unfortunately, I have no further definitive information on how the current stay affects state plan submittal deadlines or whether the 'pending reconsideration' of the final rule will be initiated during the course of the 90-day stay. For questions left unanswered by the documents found on EPA's website, do not hesitate to direct inquiries to either myself, or the contact given in the 'For Further Information Contact' section of today's FR notice. Additionally, I will update CDPHE on any news on this issue as it develops.

Sincerely,

Gregory Lohrke

U.S. EPA Region 8 | Indoor Air, Toxics & Transportation Unit

(303) 312-6396

To: Lohrke, Gregory[lohrke.gregory@epa.gov]
From: Marty Gray
Sent: Thur 6/1/2017 1:36:00 PM
Subject: Re: Stay of NSPS and EG for MSW Landfills

Thanks for the heads up.

On Wed, May 31, 2017 at 5:36 PM, Lohrke, Gregory <lohrke.gregory@epa.gov> wrote:

Mark and Marty,

I am writing to inform you of a stay, for 90 days pending reconsideration, of the municipal solid waste landfill NSPS and EG amendments and revisions promulgated last year. The notice of a stay was published in today's Federal Register (82 FR 24878). Electronic copies of the Federal Register notice from today and associated documents may be found on the EPA's website: https://www.epa.gov/stationary-sources-air-pollution/municipal-solid-waste-landfills-new-source-performance-standards. Unfortunately, I have no further definitive information on how the current stay affects state plan submittal deadlines, other than pushing them until August, or whether the 'pending reconsideration' of the final rule will be initiated during the course of the 90-day stay. For questions left unanswered by the documents found on EPA's website, do not hesitate to direct inquiries to either myself, or the contact given in the 'For Further Information Contact' section of today's FR notice. Additionally, I will update Utah DEQ on any news on this issue as it develops.

Sincerely,

Gregory Lohrke

U.S. EPA Region 8 | Indoor Air, Toxics & Transportation Unit

(303) 312-6396

--

Marty Gray | Program Manager | Permitting Branch

Phone: 801.536.4151

To: Rombough, Kyrik[Kyrik.Rombough@state.sd.us]
From: Lohrke, Gregory
Sent: Wed 5/31/2017 11:49:09 PM
Subject: Stay of NSPS and EG for MSW Landfills

Kyrik,

I am writing to inform you of a stay, for 90 days pending reconsideration, of the municipal solid waste landfill NSPS and EG amendments and revisions promulgated last year. The notice of a stay was published in today's Federal Register (82 FR 24878). Electronic copies of the Federal Register notice from today and associated documents may be found on the EPA's website: https://www.epa.gov/stationary-sources-air-pollution/municipal-solid-waste-landfills-new-source-performance-standards. Unfortunately, I have no further definitive information on how the current stay affects state plan submittal deadlines, other than pushing them until August, or whether the 'pending reconsideration' of the final rule will be initiated during the course of the 90-day stay. For questions left unanswered by the documents found on EPA's website, do not hesitate to direct inquiries to either myself, or the contact given in the 'For Further Information Contact' section of today's FR notice. Additionally, I will update SD DENR on any news on this issue as it develops.

Sincerely,

Gregory Lohrke

U.S. EPA Region 8 | Indoor Air, Toxics & Transportation Unit

(303) 312-6396

To: amber.potts@wyo.gov[amber.potts@wyo.gov]
From: Lohrke, Gregory
Sent: Wed 5/31/2017 11:47:29 PM
Subject: Stay of NSPS and EG for MSW Landfills

Amber,

I am writing to inform you of a stay, for 90 days pending reconsideration, of the municipal solid waste landfill NSPS and EG amendments and revisions promulgated last year. The notice of a stay was published in today's Federal Register (82 FR 24878). Electronic copies of the Federal Register notice from today and associated documents may be found on the EPA's website: https://www.epa.gov/stationary-sources-air-pollution/municipal-solid-waste-landfills-new-source-performance-standards. Unfortunately, I have no further definitive information on how the current stay affects state plan submittal deadlines, other than pushing them until August, or whether the 'pending reconsideration' of the final rule will be initiated during the course of the 90-day stay. For questions left unanswered by the documents found on EPA's website, do not hesitate to direct inquiries to either myself, or the contact given in the 'For Further Information Contact' section of today's FR notice. Additionally, I will update Wyoming DEQ on any news on this issue as it develops.

Sincerely,

Gregory Lohrke

U.S. EPA Region 8 | Indoor Air, Toxics & Transportation Unit

(303) 312-6396

To: toclair@nd.gov[toclair@nd.gov]
From: Lohrke, Gregory
Sent: Wed 5/31/2017 11:44:47 PM
Subject: Stay of NSPS and EG for MSW Landfills

Terry,

I am writing to inform you of a stay, for 90 days pending reconsideration, of the municipal solid waste landfill NSPS and EG amendments and revisions promulgated last year. The notice of a stay was published in today's Federal Register (82 FR 24878). Electronic copies of the Federal Register notice from today and associated documents may be found on the EPA's website: https://www.epa.gov/stationary-sources-air-pollution/municipal-solid-waste-landfills-new-source-performance-standards. Unfortunately, I have no further definitive information on how the current stay affects state plan submittal deadlines, other than pushing them until August, or whether the 'pending reconsideration' of the final rule will be initiated during the course of the 90-day stay. For questions left unanswered by the documents found on EPA's website, do not hesitate to direct inquiries to either myself, or the contact given in the 'For Further Information Contact' section of today's FR notice. Additionally, I will update ND DAQ on any news on this issue as it develops.

Sincerely,

Gregory Lohrke

U.S. EPA Region 8 | Indoor Air, Toxics & Transportation Unit

(303) 312-6396

To: Ackerlund, Julie[JAckerlund@mt.gov]
From: Lohrke, Gregory
Sent: Wed 5/31/2017 11:38:55 PM
Subject: Stay of NSPS and EG for MSW Landfills

Julie,

I am writing to inform you of a stay, for 90 days pending reconsideration, of the municipal solid waste landfill NSPS and EG amendments and revisions promulgated last year. The notice of a stay was published in today's Federal Register (82 FR 24878). Electronic copies of the Federal Register notice from today and associated documents may be found on the EPA's website: https://www.epa.gov/stationary-sources-air-pollution/municipal-solid-waste-landfills-new-source-performance-standards. Unfortunately, I have no further definitive information on how the current stay affects state plan submittal deadlines, other than pushing them until August, or whether the 'pending reconsideration' of the final rule will be initiated during the course of the 90-day stay. For questions left unanswered by the documents found on EPA's website, do not hesitate to direct inquiries to either myself, or the contact given in the 'For Further Information Contact' section of today's FR notice. Additionally, I will update Montana DEQ on any news on this issue as it develops.

Sincerely,

Gregory Lohrke

U.S. EPA Region 8 | Indoor Air, Toxics & Transportation Unit

(303) 312-6396

To: martygray@utah.gov[martygray@utah.gov]; mberger@utah.gov[mberger@utah.gov]
From: Lohrke, Gregory
Sent: Wed 5/31/2017 11:36:27 PM
Subject: Stay of NSPS and EG for MSW Landfills

Mark and Marty,

I am writing to inform you of a stay, for 90 days pending reconsideration, of the municipal solid waste landfill NSPS and EG amendments and revisions promulgated last year. The notice of a stay was published in today's Federal Register (82 FR 24878). Electronic copies of the Federal Register notice from today and associated documents may be found on the EPA's website: https://www.epa.gov/stationary-sources-air-pollution/municipal-solid-waste-landfills-new-source-performance-standards. Unfortunately, I have no further definitive information on how the current stay affects state plan submittal deadlines, other than pushing them until August, or whether the 'pending reconsideration' of the final rule will be initiated during the course of the 90-day stay. For questions left unanswered by the documents found on EPA's website, do not hesitate to direct inquiries to either myself, or the contact given in the 'For Further Information Contact' section of today's FR notice. Additionally, I will update Utah DEQ on any news on this issue as it develops.

Sincerely,

Gregory Lohrke

U.S. EPA Region 8 | Indoor Air, Toxics & Transportation Unit

(303) 312-6396

To: Hackett - CDPHE, Sean[sean.hackett@state.co.us]; Martland - CDPHE, Leah[leah.martland@state.co.us]
From: Lohrke, Gregory
Sent: Wed 5/31/2017 11:33:29 PM
Subject: Stay of NSPS and EG for MSW Landfill Emissions

Sean and Leah,

I am writing to inform you of a stay, for 90 days pending reconsideration, of the municipal solid waste landfill NSPS and EG amendments and revisions promulgated last year. The notice of a stay was published in today's Federal Register (82 FR 24878). Electronic copies of the Federal Register notice from today and associated documents may be found on the EPA's website: https://www.epa.gov/stationary-sources-air-pollution/municipal-solid-waste-landfills-new-source-performance-standards. Unfortunately, I have no further definitive information on how the current stay affects state plan submittal deadlines or whether the 'pending reconsideration' of the final rule will be initiated during the course of the 90-day stay. For questions left unanswered by the documents found on EPA's website, do not hesitate to direct inquiries to either myself, or the contact given in the 'For Further Information Contact' section of today's FR notice. Additionally, I will update CDPHE on any news on this issue as it develops.

Sincerely,

Gregory Lohrke

U.S. EPA Region 8 | Indoor Air, Toxics & Transportation Unit

(303) 312-6396

To: Ackerlund, Julie[JAckerlund@mt.gov]
From: Lohrke, Gregory
Sent: Tue 5/23/2017 4:44:03 PM
Subject: RE: MSW Landfill Rule Stay

That is correct. I am the Region 8 contact for all 111(d)/129 state plans. If you have any questions on the delegation of authority process, please let me know.

-Greg

From: Ackerlund, Julie [mailto:JAckerlund@mt.gov]
Sent: Tuesday, May 23, 2017 10:38 AM
To: Lohrke, Gregory <lohrke.gregory@epa.gov>
Subject: RE: MSW Landfill Rule Stay

Greg,

Thanks for the MSW update!

Will I am sitting through 90-day stay, Liz has me looking into the HMIWI federal plan adoption. I am just getting familiar with the history and status of the bureau work. I mention this because I understand you are the EPA contact for this work as well.

-Julie

From: Lohrke, Gregory [mailto:lohrke.gregory@epa.gov]
Sent: Tuesday, May 23, 2017 10:09 AM
To: Ackerlund, Julie
Subject: RE: MSW Landfill Rule Stay

Morning Julie,

EPA, yesterday, submitted a Federal Register notice for a 90 day stay of the MSW landfill rule pending reconsideration. The notice can be found at this link:

https://www.epa.gov/sites/production/files/2017-05/documents/fr_notice_landfills_90-daystay.pdf

The letter from the Administrator to industry can be found here:

https://www.epa.gov/sites/production/files/2017-05/documents/signed_-_letter_-_municipal_solid_waste_landfills.pdf

Once the notice is published, I will probably be emailing all states on the notice of a 90 day stay, and will try to update you on the reconsideration as it progresses.

Regards

From: Ackerlund, Julie [mailto:JAckerlund@mt.gov]
Sent: Wednesday, May 17, 2017 9:47 AM
To: Lohrke, Gregory <lohrke.gregory@epa.gov>
Subject: RE: MSW Landfill Rule Stay

Thanks Greg, it will be interesting to see where this goes.

From: Lohrke, Gregory [mailto:lohrke.gregory@epa.gov]
Sent: Wednesday, May 17, 2017 9:34 AM
To: Ackerlund, Julie
Subject: RE: MSW Landfill Rule Stay

Hi Julie,

Thanks for keeping abreast of this matter. Yes, I had seen this reported after the deadline for CRA resolutions passed (or, at least I believe it has officially passed). We still haven't seen an official notice of reconsideration of the rule published in the Federal Register, but I will keep in contact with you about any official notice I receive from either HQ or through the Office of the Federal Register. Sorry to say, I don't have on hand a copy of the letter sent to industry groups, but I will let you know if I receive any more details on that letter as well.

Regards

From: Ackerlund, Julie [mailto:JAckerlund@mt.gov]
Sent: Tuesday, May 16, 2017 2:43 PM
To: Lohrke, Gregory <lohrke.gregory@epa.gov>
Subject: MSW Landfill Rule Stay

Hi Greg,

I just learned that EPA intends to have a 90-day stay on the MSW landfill rules. Have you heard this?

I would love to see a copy of the letter to industries and industry groups that mention this plan. Any chance that is available for distribution?

If you haven't read about this announcement last week, here are a couple links with articles I have recently read:

http://www.wastetodaymagazine.com/article/epa-indicates-intent-to-reconsider-landfill-

rules/

http://www.waste360.com/emissions/industry-responds-epa-stay-landfill-air-rules

Regards,

Julie Ackerlund | Air Quality Planner
(406) 444-4267 | JAckerlund@mt.gov

Air Quality Bureau

DEQ Montana Department of Environmental Quality

To: Jackson, Scott[Jackson.Scott@epa.gov]
From: Lohrke, Gregory
Sent: Fri 3/17/2017 5:07:49 PM
Subject: FW: Montana's MSW Landfill State Plan Schedule Delay

Scott,

Montana response RE: MSW landfill rule status.

From: Ackerlund, Julie [mailto:JAckerlund@mt.gov]
Sent: Tuesday, March 14, 2017 2:29 PM
To: Lohrke, Gregory <lohrke.gregory@epa.gov>
Subject: RE: Montana's MSW Landfill State Plan Schedule Delay

Hi Greg,

I really appreciate knowing what you have learned from HQ regarding the landfill rule, and I have passed it along to my management. Please keep me posted if you hear anything new or different regarding the use of the CRA on the landfill rules.

I think the use of the CRA will need to occur by about May 24th, if I understand correctly how consecutive legislative days are counted. So I am hopeful that we can bring our rulemaking before our Board at its June 2nd meeting and be able to proceed with confidence.

I will stay in touch with you should we have any other changes to our schedule. Our rule package for the Board is nearly complete, so I do not see any holdups from that stand point.

Best Regards,

Julie Ackerlund

From: Lohrke, Gregory [mailto:lohrke.gregory@epa.gov]
Sent: Monday, March 13, 2017 9:17 AM
To: Ackerlund, Julie
Subject: RE: Montana's MSW Landfill State Plan Schedule Delay

Thank you for the heads up Julie,

Sorry for the delay in getting back to you. I wanted to check in with HQ regarding the landfill rule and if anyone had heard of an intent from the new admin or congress about using the CRA mechanism to nullify the rule.

No one is hearing or sensing an intent to reach back to this rule in particular for nullification, but I will make a note of your updated schedule. I understand the hesitancy in light of the large degree of uncertainty at the national level. We should know for certain by early May (if I'm reading the legislative calendars correctly) whether the landfill rule has survived CRA repeal or not. There is a mechanism for extending the state plan submittal deadline at Agency discretion; however, I'm not sure what factors into requesting and approving such an extension. I will let you know what I find out on that front.

If you will be working on anything regarding subpart Cf prior to state plan submittal, please don't hesitate to contact me. I will keep you all in the loop with regard to any relevant updates.

Regards,

From: Ackerlund, Julie [mailto:JAckerlund@mt.gov]
Sent: Wednesday, March 8, 2017 11:45 AM
To: Lohrke, Gregory <lohrke.gregory@epa.gov>
Cc: Dobrahner, Jaslyn <Dobrahner.Jaslyn@epa.gov>; Ulrich, Liz <EUlrich2@mt.gov>; Jackson, Scott <Jackson.Scott@epa.gov>
Subject: Montana's MSW Landfill State Plan Schedule Delay

Hi Greg,

I just want to stay in touch with you regarding our state plan for the new municipal solid waste landfill rule of Subpart Cf. We have been working on developing many of the required elements of the plan. However, the rulemaking we need to include in the state plan has been delayed out of concerns for changes at the national administrative level.

We are postponing our rule initiation with our Board until we are confident that the national administration will not repeal the rule. We do not anticipate bringing our rule before the Board until their June or August meeting. This will be a delay from our original schedule in which we had hoped to have a state plan to you in September. Based on the Board's schedule, we now anticipate that our state plan may not be available until early 2018.

If you have any concerns about the change to this schedule, please let me know.

Best Regards,

Julie Ackerlund | Air Quality Planner
(406) 444-4267 | JAckerlund@mt.gov

Air Quality Bureau

To: tbachman@nd.gov[tbachman@nd.gov]
Cc: Morrison, Kendra[Morrison.Kendra@epa.gov]
From: Lohrke, Gregory
Sent: Wed 3/8/2017 4:31:42 PM
Subject: ND MSWL subpart Cf revisions comments
ND MSWL rule_Draft Comments.docx
Chapter 33-15-12_comments.docx

Mr. Bachman,

I am the new 111(d)/129 coordinator here at Region 8. Kendra copied me your revisions of the ND MSW landfill rule implementing subpart Cf. Thank you for checking in with us early in the process of revisions. I've taken the liberty of reviewing the changes you have made to subpart Cf in service of IBR'ing the remainder of the Subpart. Please find attached some comments I have made on your preliminary changes. Many are close to negligible, but a few may be necessary to keep in mind when adjusting directional language and preserving the intent of the rule as is in the CFR. I would appreciate your feedback on the "draft comments" document if you get the chance.

If you have any questions or clarification on what I have written in the attachment, please don't hesitate to contact me.

Gregory Lohrke

U.S. EPA Region 8 | Indoor Air, Toxics & Transportation Unit

(303) 312-6396

Page	Line Number	Affected Section/Paragraph	Comment
throughout	throughout	throughout	Either "MSW landfill" or "municipal solid waste landfill" could be used throughout.* With revisions provided here, language switches within paragraphs. Could remain consistent with use of "MSW landfill" throughout 40 CFR 60 subpart Cf by refraining from adjusting the language in revisions where possible. *minor comment
multiple	multiple	60.31f(e); 60.33f(c)(2)(iii); 60.38f(d)(4)(iv)(D); 60.38f(e)	Certain language in these sections may not be directly IBR'd References to 'a state plan implementing subpart Cc of this part' need to refer to the North Dakota state plan implementing subpart Cc from December 1997 ("Section 111(d) Plan for Municipal Solid Waste Landfills" and the associated State regulation in section 33-15-12-02 of the North Dakota Administrative Code). Cannot refer the operator to just any state plan implementing subpart Cc. Where found at these sections, 'a state plan' should be replaced with something similar to: 'the North Dakota state plan implementing subpart Cc of this part, found at 40 CFR 62 Subpart JJ,…'
5	18	60.30f(c)	Suggest: "60.30f(c) – The first sentence is deleted and replaced by the following: The following authorities will be retained by the United States Environmental Protection Agency:"
6	1	60.33f(d)	The use of 'department' here in place of 'Administrator' prompts confusion for the reviewer. In other sections of similar consequence, 'administrator' is preserved (e.g. 60.33f(e)(1)(ii)(B), 60.33f(e)(2), etc.). As the revised definition for 'administrator' at §60.2 makes clear, the administrator 'means the department' except for in those cases of duties reserved by EPA. Is this a special case, typographical error, or should more (or fewer) instances of 'administrator' be changed to 'department'? An example of mixed communication presents itself at §60.34f(b)(3), where the unchanged language is that all "design changes must be approved by the <u>Administrator</u> as specified in §60.38f(d)". Then, when moving to §60.38f(d), we see that the language has changed to indicate that the "<u>department</u> shall review and approve [design changes]".

6	12	60.34f	As replaced and revised: "*Each owner or operator of a municipal solid waste landfill subject to provisions of this subpart shall comply with the applicable provisions for the operational standards in this section for a municipal solid waste landfill with a gas collection and control system used to comply with the provisions of section 60.33f(b) and (c).* Each owner or operator of an MSW landfill with a gas collection and control system used to comply with the provisions of section 60.33f(b) and (c) must:" Might be more straightforward if deleting both sentences and having requirements consolidated within one sentence, such as: "Each owner or operator of a MSW landfill subject to the provisions of this subpart with a gas collection and control system used to comply with the provisions of section 60.33f(b) and (c) must comply with the operational standards of this section as follow:"
N/A	N/A	60.35f(a)(5) 60.35f(b)(3) 60.35f(e) 60.36f(a)(1) Et al.	The change in definition for 'Administrator' <u>and</u> clarification that the duties found at 60.30f(c)(1) are reserved for the Administrator of EPA should be adequate to explain that 'other methods' to determine NMOC concentration or a site-specific rate constant can only be approved by the [EPA] Administrator.
N/A	N/A	60.38f(a)(2)	Language at 60.38f(a)(2) could be problematic: "The state, local, or tribal agency or the <u>Administrator</u> may request other reasonable information as may be necessary to verify the maximum design capacity of the landfill." Whereas the original section seems to extend the EPA Administrator's authority in the verification of landfill design capacity, the State's definition at section 60.2 would limit authority to only those duties that cannot be delegated to the state. In the case of this paragraph the revised definition would seem to create a redundancy by stating that either the state agency or the state agency administrator could request additional information from the landfill operator. Language should be inserted here to specify that this additional authority is here also being granted to the EPA administrator as well as the state agency.
N/A	N/A	60.41f	Definition of 'Administrator' remains similar to that found at original section 60.2. Could match definition as changed for the State, or be deleted

CHAPTER 33-15-12
STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

Section
33-15-12-01 General Provisions [Repealed]
33-15-12-01.1 Scope
33-15-12-02 Standards of Performance
33-15-12-03 [Reserved]
33-15-12-04 Standards of Performance [Repealed]

33-15-12-01. General provisions. Repealed effective June 1, 1992.

33-15-12-01.1. Scope. Except as noted below the title of the subpart, the subparts and appendices of title 40, Code of Federal Regulations, part 60 (40 CFR 60) as they exist on ~~July 1, 2015~~ April 1, 2017, which are listed under section 33-15-12-02 are incorporated into this chapter by reference. Any changes to the standards of performance are listed below the title of the standard.

History: Effective June 1, 1992; amended effective December 1, 1994; January 1, 1996; September 1, 1997; September 1, 1998; June 1, 2001; March 1, 2003; February 1, 2005; April 1, 2009; April 1, 2011; January 1, 2013; April 1, 2014; July 1, 2016.
General Authority: NDCC 23-25-03
Law Implemented: NDCC 23-25-03

33-15-12-02. Standards of Performance.

Subpart A - General provisions.

*60.2. The definition of administrator is deleted and replaced with the following:

Administrator means the department except for those duties that cannot be delegated by the United States environmental protection agency. For those duties that cannot be delegated, administrator means the administrator of the United States environmental protection agency.

Subpart C - Emission guidelines and compliance times.

Subpart Cc - Emissions guidelines and compliance times for municipal solid waste landfills.

Designated facilities to which this subpart applies shall comply with the requirements for state plan approval in 40 CFR parts 60.33c, 60.34c and 60.35c. except that quarterly surface monitoring for methane under part 60.34c shall only be required during the second, third, and fourth quarters of the calendar year.

Designated facilities under this subpart shall:

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1. Submit a final control plan for department review and approval within twelve months of the date of the United States environmental protection agency's approval of this rule, or within twelve months of becoming subject to this rule, whichever occurs later.

2. Award contracts for control systems/process modification within twenty-four months of the date of the United States environmental protection agency's approval of this rule, or within twenty-four months of becoming subject to the rule, whichever occurs later.

3. Initiate onsite construction or installation of the air pollution control device or process changes within twenty-seven months of the date of the United States environmental protection agency's approval of this rule, or within twenty-seven months of becoming subject to the rule, whichever occurs later.

4. Complete onsite construction or installation of the air pollution control device or devices or process changes within twenty-nine months of the United States environmental protection agency's approval of this rule, or within twenty-nine months of becoming subject to the rule, whichever is later.

5. Conduct the initial performance test within one hundred eighty days of the installation of the collection and control equipment. A notice of intent to conduct the performance test must be submitted to the department at least thirty days prior to the test.

6. Be in final compliance within thirty months of the United States environmental protection agency's approval of this rule, or within thirty months of becoming subject to the rule, whichever is later.

Subpart Ce - Emission guidelines and compliance times for hospital/medical/infectious waste incinerators.

Except as noted below, designated facilities to which this rule applies shall comply with the minimum requirements for state plan approval listed is subpart Ce.

*60.39e(a) is deleted in its entirety.

*60.39e(b) is deleted in its entirety and replaced with the following:

(b) Except as provided in paragraphs c and d of this section, designated facilities shall comply with all requirements of this subpart within one year of the United States environmental protection agency's approval of the state plan for hospital/medical/infectious waste incinerators regardless

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of whether a designated facility is identified in the state plan. Owners or operators of designated facilities who will cease operation of their incinerator to comply with this rule shall notify the department of their intention within six months of state plan approval.

*60.39e(c) is deleted in its entirety and replaced with the following:

(c) Owners or operators of designated facilities planning to install the necessary air pollution control equipment to comply with the applicable requirements may petition the department for an extension of the compliance time of up to three years after the United States environmental protection agency's approval of the state plan, but not later than September 16, 2002 for the emission guidelines promulgated on September 15, 1997, and not later than October 6, 2014 for the emission guidelines promulgated on October 6, 2009, provided the facility owner or operator complies with the following:

1. Submits a petition to the department for site specific operating parameters under 40 CFR 60.56c(i) of subpart Ec within thirty months of approval of the state plan and sixty days prior to the performance test.

2. Provides proof to the department of a contract for obtaining services of an architectural or engineering firm or architectural and engineering firm regarding the air pollution control device(s) within nine months of state plan approval.

3. Submits design drawings to the department of the air pollution control device within twelve months of state plan approval.

4. Submits to the department a copy of the purchase order or other documentation indicating an order has been placed for the major components of the air pollution control device within sixteen months after state plan approval.

5. Submits to the department the schedule for delivery of the major components of the air pollution control device within twenty months after state plan approval.

6. Begins initiation of site preparation for installation of the air pollution control device within twenty-two months after state plan approval.

7. Begins initiation of installation of the air pollution control device within twenty-five months after state plan approval.

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8. Starts up the air pollution control device within twenty-eight months after state plan approval.

9. Notifies the department of the performance test thirty days prior to the test.

10. Conducts the performance test within one hundred eighty days of the installation of the air pollution control device.

11. Submits a performance test report which demonstrates compliance within thirty-six months of state plan approval.

*60.39e(d) is deleted in its entirety and replaced with the following:

1. Designated facilities petitioning for an extension of the compliance time in paragraph b of this section shall, within six months after the United States environmental protection agency's approval of the state plan, submit:

   i. Documentation of the analyses undertaken to support the need for more than one year to comply, including an explanation of why up to three years after United States environmental protection agency approval of the state plan is sufficient to comply with this subpart while one year is not. The documentation shall also include an evaluation of the option to transport the waste offsite to a commercial medical waste treatment and disposal facility on a temporary or permanent basis; and

   ii. Documentation of measurable and enforceable incremental steps of progress to be taken toward compliance with this subpart.

2. The department shall review any petitions for the extension of compliance times within thirty days of receipt of a complete petition and make a decision regarding approval or denial. The department shall notify the petitioner in writing of its decision within forty-five days of the receipt of the petition. All extension approvals must include incremental steps of progress. For those sources planning on installing air pollution control equipment to comply with this subpart, the incremental steps of progress included in 40 CFR 60.39e(c) shall be included as conditions of approval of the extension.

3. Owners or operators of facilities which received an extension to the compliance time in this subpart shall be in compliance with the applicable requirements on or before the date three years after United States environmental protection agency approval of the state plan but not later than September 16, 2002 for the emission guidelines promulgated on September 15, 1997. For the amended emission guidelines published on October 6, 2009, compliance with the applicable requirements shall be

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attained on or before the date three years after United States environmental protection agency approval of the amended state plan but not later than October 6, 2014.

*60.39e(f) is deleted in its entirety.

After the compliance dates specified in this subpart, an owner or operator of a facility to which this subpart applies shall not operate any such unit in violation of this subpart.

Subpart Cf – Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills

_____ *60.30f(a) is deleted.

_____ *60.30f(b) is deleted.

*60.33f(a) – The first sentence is deleted and replaced with the following:

Each owner or operator of a municipal solid waste landfill subject to the provisions of this subpart and having a design capacity greater than or equal to 2.5 million megagrams by mass and 2.5 million cubic meters by volume shall collect and control municipal solid waste landfill emissions at each municipal solid waste landfill that meets the following conditions:

*60.33f(b) – The first sentence is deleted and replaced by the following:

Each owner or operator of a municipal solid waste landfill shall comply with the requirements in paragraph(b)(1) through (3) and (c) of this section at each municipal solid waste landfill meeting the conditions in paragraph (a) of this section.

*60.33f(c) – The first sentence is deleted and replace with the following:

Each owner or operator of a municipal solid waste landfill subject to the provisions of this subpart and having a design capacity greater than or equal to 2.5 million megagrams by mass and 2.5 million cubic meters by volume shall control the gas collected from within the landfill through the use of control devices meeting the following requirements, except as provided in section 60.24.

*

*60.33f(d) – The first sentence is deleted and replaced with the following:

Each owner or operator of a municipal solid waste landfill having a design capacity less than 2.5 million megagrams by mass or 2.5 million cubic meters by volume shall submit an initial design capacity report to the department as provided in section 60.38f(a).

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*60.33f(e) – The first sentence is deleted and replaced with the following:

Each owner or operator of a municipal solid waste landfill having a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters shall either install a collection and control system as provided in paragraphs (b) and (c) of this section or calculate an initial NMOC emission rate for the landfill using the procedures specified in section 60.35f(a).

*

*60.34f – The first sentence is deleted and replaced with the following:

Each owner or operator of a municipal solid waste landfill subject to provisions of this subpart shall comply with the applicable provisions for the operational standards in this section for a municipal solid waste landfill with a gas collection and control system used to comply with the provisions of section 60.33f(b) and (c).

*60.35f – The first sentence is deleted and replaced with the following:

Each owner or operator of a municipal solid waste landfill subject to the provisions of this subpart shall comply with the applicable provisions in this section to calculate the landfill NMOC emission rate or to conduct a surface emission monitoring demonstration.

*60.36f – The first sentence is deleted and replaced with the following:

Each owner or operator of a municipal solid waste landfill that is subject to the provisions of this subpart shall comply with the applicable compliance provisions in this section.

*60.37f – The first sentence is deleted and replaced with the following:

Each owner or operator of a municipal solid waste landfill that is subject to the provisions of this subpart shall comply with the applicable monitoring provisions in this section, except as provided in 60.38f(d)(2).

*60.38f – The first sentence is deleted and replaced with the following:

Each owner or operator of a municipal solid waste landfill that is subject to the provisions of this subpart shall comply with the reporting provisions listed in this section, as applicable, except as provided by section 60.24 and 60.38f(d)(2).

*60.38f(d) – The first sentence is deleted and replaced with the following:

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The department shall review and approve the site-specific design plan for each gas collection and control system as outlined in the 111(d) plan for municipal solid waste landfills subject to the provisions of this subpart.

*60.39f – The first sentence is deleted and replaced with the following:

Each owner or operator of a municipal solid waste landfill that is subject to the provisions of this subject shall comply with the applicable recordkeeping provisions in this section.

*60.40f – The first sentence is deleted and replace by the following:

Each owner or operator of a municipal solid waste landfill that is subject to the provisions of this subpart and required to install an active collection system shall comply with the applicable specifications for active collection systems in this section.

Subpart D - Standards of performance for fossil-fuel fired steam generators for which construction is commenced after August 17, 1971.

Subpart Da - Standards of performance for electric utility steam generating units for which construction is commenced after September 18, 1978.

*The limits and other requirements for mercury are deleted.

Subpart Db - Standards of performance for industrial-commercial-institutional steam generating units.

Subpart Dc - Standards of performance for small industrial-commercial-institutional steam generating units.

Subpart E - Standards of performance for incinerators.

Subpart Ea - Standards of performance for municipal waste combustors for which construction is commenced after December 20, 1989, and on or before September 20, 1994.

Subpart Ec - Standards of performance for hospital/medical/infectious waste incinerators for which construction is commenced after June 20, 1996.

Subpart F - Standard of performance for portland cement plants.

Subpart G - Standards of performance for nitric acid plants.

Subpart H - Standards of performance for sulfuric acid plants.

Subpart I - Standards of performance for hot mix asphalt facilities.

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Subpart J - Standards of performance for petroleum refineries.

Subpart Ja – Standards of performance for petroleum refineries for which construction, reconstruction, or modification commenced after May 14, 2007.

Those portions of the subpart that have been stayed are not adopted.

Subpart K - Standards of performance for storage vessels for petroleum liquids for which construction, reconstruction, or modification commenced after June 11, 1973, and prior to May 19, 1978.

*60.110(c) is deleted in its entirety and replaced with the following:

(c) Any facility under part 60.110(a) that commenced construction, reconstruction, or modification after July 1, 1970, and prior to May 19, 1978, is subject to the requirements of this subpart.

Subpart Ka - Standards of performance for storage vessels for petroleum liquids for which construction, reconstruction, or modification commenced after May 18, 1978 and prior to July 23, 1984.

Subpart Kb - Standards of performance for volatile organic liquid storage vessels (including petroleum liquid storage vessels) for which construction, reconstruction, or modification commenced after July 23, 1984.

Subpart O - Standards of performance for sewage treatment plants.

Subpart T - Standards of performance for the phosphate fertilizer industry: wet-process phosphoric acid plants.

Subpart U - Standards of performance for the phosphate fertilizer industry: superphosphoric acid plants.

Subpart V - Standards of performance for the phosphate fertilizer industry: diammonium phosphate plants.

Subpart W - Standards of performance for the phosphate fertilizer industry: triple superphosphate plants.

Subpart X - Standards of performance for the phosphate fertilizer industry: granular triple superphosphate storage facilities.

Subpart Y - Standards of performance for coal preparation plants.

Subpart Z - Standards of performance for ferroalloy production facilities.

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Subpart AA - Standards of performance for steel plants: electric arc furnaces: constructed after October 21, 1974, and before August 17, 1983.

Subpart AAa - Standards of performance for steel plants: electric arc furnaces and argon-oxygen decarburization vessels constructed after August 17, 1983.

Subpart CC - Standards of performance for glass manufacturing plants.

Subpart DD - Standards of performance for grain elevators.

Subpart EE - Standards of performance for surface coatings of metal furniture.

Subpart FF - [Reserved]

Subpart GG - Standards of performance for stationary gas turbines.

Subpart HH - Standards of performance for lime manufacturing plants.

Subpart KK - Standards of performance for lead-acid battery manufacturing plants.

Subpart LL - Standards of performance for metallic mineral processing plants.

Subpart MM - Standards of performance for automobile and light-duty truck surface coating operations.

Subpart NN - Standards of performance for phosphate rock plants.

Subpart PP - Standards of performance for ammonium sulfate manufacture.

Subpart QQ - Standards of performance for the graphic arts industry: publication rotogravure printing.

Subpart RR - Standards of performance for pressure sensitive tape and label surface coating operations.

Subpart SS - Standards of performance for industrial surface coating: large appliances.

Subpart TT - Standards of performance for metal coil surface coating.

Subpart UU - Standards of performance for asphalt processing and asphalt roofing manufacture.

Subpart VV - Standards of performance for equipment leaks of volatile organic compound (VOC) emissions in the synthetic organic chemicals manufacturing industry.

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Subpart VVa – Standards of performance for equipment leaks of VOC in the synthetic organic chemicals manufacturing industry for which construction, reconstruction, or modification commenced after November 7, 2006.

Subpart WW - Standards of performance for the beverage can surface coating industry.

Subpart XX - Standards of performance for bulk gasoline terminals.

Subpart AAA - Standards of performance for new residential wood heaters.

Subpart BBB - Standards of performance for the rubber tire manufacturing industry.

Subpart CCC - [Reserved]

Subpart DDD - Standards of performance for volatile organic compound (VOC) emissions for the polymer manufacturing industry.

Subpart EEE - [Reserved]

Subpart FFF - Standards of performance for flexible vinyl and urethane coating and printing.

Subpart GGG - Standards of performance for equipment leaks of volatile organic compound (VOC) emissions in petroleum refineries.

Subpart GGGa – Standards of performance for equipment leaks of VOC in petroleum refineries for which construction, reconstruction, or modification commenced after November 7, 2006.

Those portions of the subpart that are stayed are not adopted.

Subpart HHH - Standards of performance for synthetic fiber production facilities.

Subpart III - Standards of performance for volatile organic compound (VOC) emissions from the synthetic organic chemical manufacturing industry (SOCMI) air oxidation unit processes.

Subpart JJJ - Standards of performance for petroleum drycleaners.

Subpart KKK - Standards of performance for equipment leaks of volatile organic compound (VOC) emissions from onshore natural gas processing plants.

Subpart LLL - Standards of performance for onshore natural gas processing; SO_2 emissions.

Subpart MMM – [Reserved]

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Subpart NNN - Standards of performance for volatile organic compound (VOC) emissions from synthetic organic chemical manufacturing industry (SOCMI) distillation operations.

Subpart OOO - Standards of performance for nonmetallic mineral processing plants.

Subpart PPP - Standards of performance for wool fiberglass insulation manufacturing plants.

Subpart QQQ - Standards of performance for volatile organic compound (VOC) emissions from petroleum refinery wastewater systems.
Subpart RRR - Standards of performance for volatile organic compound (VOC) emissions from synthetic organic chemical manufacturing industry (SOCMI) reactor processes.

Subpart SSS - Standards of performance for magnetic tape coating facilities.

Subpart TTT - Standards of performance for industrial surface coating: surface coating of plastic parts for business machines.

Subpart UUU - Standards of performance for calciners and dryers in mineral industries.

Subpart VVV - Standards of performance for polymetric coating of supporting substrates facilities.

Subpart WWW - Standards of performance for municipal solid waste landfills.

Subpart XXX – Standards of performance for municipal solid waste landfills that commenced construction, reconstruction or modification after July 17, 2014.

Subpart AAAA - Standards of performance for small municipal waste combustion units for which construction is commenced after August 30, 1999, or for which modification or reconstruction is commenced after June 6, 2001.

Subpart CCCC - Standards of performance for commercial and industrial solid waste incineration units.

Subpart DDDD - Emission guidelines and compliance times for commercial and industrial solid waste incineration units.

Except as provided below, designated facilities to which this rule applies shall comply with 40 CFR 60.2575 through 60.2875, including tables 1 through ~~5~~ 9.

In the rule, you means the owner or operator of a commercial or industrial solid waste incineration unit.

Table 1 of the rule is deleted and replaced with the following:

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Table 1 to Subpart DDDD - Model Rule
Increments of Progress and Compliance Schedules

CISWI Units That Commenced Construction On or Before November 30, 1999	
Comply with these increments of progress	By these dates
Increment 1 - Submit final control plan	One year after EPA approval of the state plan or December 1, 2004, whichever comes first.
Increment 2 - Final compliance	Three years after EPA approval of the state plan or December 1, 2005, whichever comes first.

Incinerator CISWI units that commenced construction after November 30, 1999 but no later than June 4, 2010 or commenced modification or reconstruction after June 1, 2001 but no later than August 7, 2013. CISWI units other than incinerator units that commenced construction on or before June 4, 2010, or commenced modification or reconstruction after June 4, 2010 but no later than August 7, 2013.	
Comply with these increments of progress	By these dates
Increment 1 - Submit final control plan	One year after EPA approval of the state plan or February 7, 2017, whichever comes first.
Increment 2 - Final compliance	Three years after EPA approval of the state plan or February 7, 2018, whichever comes first.

Subpart GGGG – [Reserved]

Subpart IIII – Standards of performance for stationary compression ignition internal combustion engines.

Subpart JJJJ – Standards of performance for stationary sparks ignition internal combustion engines.

Subpart KKKK - Standards of performance for stationary combustion turbines.

Appendix A - Test methods.

Appendix B - Performance specifications.

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Appendix C - Determination of emission rate change.

Appendix D - Required emission inventory information.

Appendix E - [Reserved]

Appendix F - Quality assurance procedures.

Appendix I - Removable label and owner's manual.

History: Effective June 1, 1992; amended effective March 1, 1994; December 1, 1994; January 1, 1996; September 1, 1997; September 1, 1998; June 1, 2001; March 1, 2003; February 1, 2005; January 1, 2007; April 1, 2009; April 1, 2011; January 1, 2013; April 1, 2014.
General Authority: NDCC 23-25-03
Law Implemented: NDCC 23-25-03

33-15-12-03. [Reserved]

33-15-12-04. Standards of performance. Repealed effective June 1, 1992.

ED_001764_00012950

To: Ackerlund, Julie[JAckerlund@mt.gov]
From: Lohrke, Gregory
Sent: Thur 8/31/2017 6:08:10 PM
Subject: RE: End of Stay on the NSPS and EG for MSW Landfills?

I can't give an official, or entirely knowledgeable answer on that. Meaning, from where I sit, it is mainly a question of whether political appointees at the highest level are sharing information on such decisions with the team-members I am in contact with. In our latest CAA section 111(d)/129 conference call, from this month, the issue was raised by several EPA regions, but there was no official response.

I've tried contacting by telephone the official point of contact on the stay, without answer, and I've copied you on an email inquiry I've just sent. If we don't hear anything back from that, I may or may not have an answer by the middle of September.

From: Ackerlund, Julie [mailto:JAckerlund@mt.gov]
Sent: Thursday, August 31, 2017 11:45 AM
To: Lohrke, Gregory <lohrke.gregory@epa.gov>
Subject: RE: End of Stay on the NSPS and EG for MSW Landfills?

How long does it usually take headquarters to make a statement/announcement about their plan?

From: Lohrke, Gregory [mailto:lohrke.gregory@epa.gov]
Sent: Thursday, August 31, 2017 11:40 AM
To: Ackerlund, Julie
Subject: RE: End of Stay on the NSPS and EG for MSW Landfills?

Thanks for touching base, Julie. The only news that I have heard from headquarters is that there is no real news on whether there will be a reconsideration or not. Sorry about the uncertainty on this matter.

Regards

From: Ackerlund, Julie [mailto:JAckerlund@mt.gov]
Sent: Thursday, August 31, 2017 11:27 AM
To: Lohrke, Gregory <lohrke.gregory@epa.gov>
Subject: End of Stay on the NSPS and EG for MSW Landfills?

Hi Greg,

I just want to stay in touch because I think yesterday (or sometime soon) the 90-day stay on the MSW Landfill rules ended. I will be anxious to hear what you learn about EPA's direction with the rules. I'll share any news I hear with you too.

Thanks,

Julie Ackerlund | Air Quality Planner
(406) 444-4267 | JAckerlund@mt.gov

Air Quality Bureau

DEQ Montana Department of Environmental Quality

COLORADO
Air Quality Control Commission
Department of Public Health & Environment

NOTICE OF WRITTEN COMMENT ONLY RULEMAKING HEARING

Regarding proposed revisions to:

Regulation Number 6, Part A

SUBJECT:
The Air Quality Control Commission will hold a rulemaking hearing to consider revisions to Regulation Number 6, Part A to incorporate by reference additions and changes to the U.S. Environmental Protection Agency's (EPA) New Source Performance Standards (NSPS), Emission Guidelines, and performance specifications in 40 C.F.R. Part 60.

The Division proposes to update the citation dates and incorporate by reference in full new and revised NSPS, Emissions Guidelines and Compliance Times, and performance specifications. Additionally, the Division requests that the Commission approve the Clean Air Act (CAA) Section 111(d) plans. States must develop and submit to the EPA 111(d) plan for implementing and enforcing federal standards on existing sources. The 111(d) plans are Colorado-specific plans proposed for EPA approval identifying how to implement the requirements for existing sources under CAA Section 111(d) and are not proposed as a regulation or for incorporation by reference into a regulation. The 111(d) plans will not be enforceable until approved by the EPA.

The proposed revisions may also correct any typographical, grammatical, and formatting errors found through the regulation.

All required documents for this rulemaking can be found on the Commission website at: https://www.colorado.gov/pacific/cdphe/aqcc

HEARING SCHEDULE:

DATE: May 18, 2017
TIME: 9:00 AM
PLACE: Colorado Department of Public Health and Environment
4300 Cherry Creek Drive South, Sabin Conference Room
Denver, CO 80246

PUBLIC COMMENT:
This is a written comment only rulemaking hearing. The Commission encourages all interested persons to provide their views in writing prior to or at the hearing. The Commission encourages that written comments be submitted by **May 2, 2017** so that Commissioners have the opportunity to review the information prior to the hearing.

Electronic submissions are preferred and should be emailed to:
cdphe.aqcc-comments@state.co.us

Written submissions should be mailed to:
Colorado Air Quality Control Commission
Colorado Department of Public Health and Environment
4300 Cherry Creek Drive South, EDO-AQCC-A5
Denver, Colorado 80246

All submissions should include: your name, address, phone number, email address, and the name of the group that you are representing (if applicable).

STATUTORY AUTHORITY FOR THE COMMISSION'S ACTIONS:
The Colorado Air Pollution Prevention and Control Act, Sections 25-7-105(1)(b) and 25-7-109, C.R.S. authorize the Commission to adopt emission control regulations, including emission control regulations relating to new stationary sources, for the development of an effective air quality control program. Further, Section 25-7-106(6) authorizes the Commission to require testing, monitoring, and recordkeeping.

The rulemaking hearing will be conducted in accordance with Sections 24-4-103 and 25-7-110, 110.5 and 110.8 C.R.S., as applicable and amended, the Commission's Procedural Rules, and as otherwise stated in this notice. This list of statutory authority is not intended as an exhaustive list of the Commission's statutory authority to act in this matter.

Dated this 17th day of February 2017 at Denver, Colorado

Colorado Air Quality Control Commission

Michael Silverstein

Michael Silverstein, Administrator

DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

Air Quality Control Commission

REGULATION NUMBER 6

Standards of Performance for New Stationary Sources

5 CCR 1001-8

[Editor's Notes follow the text of the rules at the end of this CCR Document.]

PART A

Federal Register Regulations Adopted by Reference

The regulations promulgated by the United States Environmental Protection Agency (EPA) listed below, found in Part 60, Chapter I, Title 40 of the Code of Federal Regulations (CFR) and in effect as of the dates indicated, but not including later amendments, were adopted by the Colorado Air Quality Control Commission and are hereby incorporated by reference. Copies of the material incorporated by reference are available for public inspection during regular business hours at the Office of the Commission, located at 4300 Cherry Creek Drive South, Denver, Colorado 80246-1530. Parties wishing to inspect these materials should contact the Technical Secretary of the Commission, located at the Office of the Commission. The material incorporated by reference is also available through the United States Government Printing Office, online at www.gpo.gov/fdsys.

All new sources of air pollution and all modified or reconstructed sources of air pollution shall comply with the standards, criteria, and requirements set forth herein. For the purpose of this regulation, the word "Administrator" as used in Part 60, Chapter I, Title 40, of the CFR shall mean the Colorado Air Pollution Control Division, except that in the sections in Table 1, "Administrator" shall mean both the Administrator of the Environmental Protection Agency or his authorized representative and the Colorado Air Pollution Control Division.

TABLE 1

40 CFR Part 60 Subpart*	Section(s)
A	60.8(b)(2) and (b)(3) and those sections throughout the standards that reference 60.8(b)(2) and (b)(3), 60.11(b) and (e).
Da	60.45a.
Ka	60.114a.
Kb	60.111b(f)(4), 60.114b, 60.116b (e)(3)(iii) and (e)(3)(iv), 60.116b(f)(2)(iii).
S	60.195(b).
DD	60.302(d)(3).
GG	60.332(a)(3), 60.335(a).

40 CFR Part 60 Subpart*	Section(s)
VV	60.482-1(c)(2), 60.484.
WW	60.493(b)(2)(i)(A), 60.496(a)(1).
XX	60.502(e)(6).
GGG	60.592(c).
JJJ	60.623.
KKK	60.634.

*And any other section which 40 CFR Part 60 specifically states will not be delegated to the States.

Subpart A General Provisions. 40 CFR Part 60, Subpart A (July 1, ~~2015~~2016).

(See Part B of this Regulation Number 6 for Additional Requirements Regarding Modifications)

Subpart Cb Emission Guidelines and Compliance Times for Existing Sources: Municipal Waste Combustors That Are Constructed On or Before September 20, 1994. 40 CFR Part 60, Subpart Cb (July 1, ~~2015~~2016).

Subpart Cc Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills. 40 CFR Part 60, Subpart Cc (July 1, ~~2015~~2016).

~~In addition f~~For clarification regarding requirements applicable to existing municipal solid waste landfills, designated facilities as defined in 40 CFR Part 60, Section 60.32c which meet the condition in 40 CFR Part 60, Section 60.33c(a)(1) shall submit to the Division an initial design capacity report and an initial emission rate report in accordance with 40 CFR Part 60, Section 60.757 within 90 days of the effective date of this regulation. If the design capacity report reflects that the facility meets the condition in 40 CFR Part 60, Section 60.33c(a)(2) and the initial NMOC emission rate report reflects that the facility meets the condition in 40 CFR Part 60, Section 60.33c(a)(3), the facility shall comply with the collection and control system requirements in 40 CFR Part 60, Section 60.752(b)(2)(ii), applicable control device requirements in 40 CFR Part 60, Section 60.33c(c)(1), (2) and (3), test methods and procedures requirements in 40 CFR 60.754, operational standards in 40 CFR Part 60, Section 60.753, compliance provisions in 40 CFR Part 60, Section 60.755, monitoring provisions in 40 CFR Part 60, Section 60.756 and reporting and recordkeeping provisions in 40 CFR Part 60, Sections 60.757 and 60.758, respectively. Such facilities must complete installation of air emission collection and control equipment capable of meeting the requirements of this subpart no later than 30 months from the effective date of these requirements or the date on which the source becomes subject to this subpart pursuant to 40 CFR Part 60, Section 60.36c(b) (the date on which the condition in 60.33c(a)(3) is met (i.e., the date of the first annual report in which the non-methane organic compounds emission rate equals or exceeds 50 megagrams per year)), whichever occurs later. These facilities must submit a final collection and control system design plan pursuant to 40 CFR Part 60, Section 60.757(c) within one year of the effective date of these requirements, which must be reviewed and approved by the state. The final collection and control system design plan must specify: (1) the date by which contracts for control systems/process modifications shall be awarded, (which shall be no later than 20 months after the effective date); (2) the date by which on-site construction or installation of the air pollution control device(s) or process changes will begin, (which shall be no later than 24 months after the effective date); and (3) the date by which the construction or installation of the air pollution control device(s) or process changes will be complete (which shall be no later than 30 months after the effective date).

In addition, the plan shall include site-specific design plans for the gas collection and control system(s). These facilities shall comply with the approved final collection and control system design plan and shall demonstrate compliance with these emission standards in accordance with 40 CFR Part 60, Section 60.8 not later than 180 days following initial startup of the collection and control system.

The Commission designates the effective date ~~for these requirements applicable to designated facilities~~of Colorado's 111(d) plan, including the state emission standard for existing municipal solid waste landfills, as the date on which the ~~United States Environmental Protection Agency~~EPA promulgates a final rule approving the state plan under Section 111(d) of the Clean Air Act. The Clean Air Act Section 111(d) plan implementing Subpart Cc will remain in effect until EPA approves the 111(d) plan implementing Subpart Cf as identified in 40 C.F.R. Part 62, Subpart G. Upon approval of the 111(d) plan by EPA (see Subpart Cf), designated facilities under Subpart Cc will be subject to applicable requirements specified in Subpart Cf.

Subpart Ce Emission Guidelines and Compliance Times for Hospital/Medical/Infectious Waste Incinerators. 40 CFR Part 60, Subpart Ce~~, paragraphs 60.30e; 60.31e; 60.32e; 60.33e(a)(1)-(3), (b)(1)-(2), (c)(1)-(2); 60.34e (referencing 40 CFR Part 60 Subpart Ec Section 60.53c); 60.35e (referencing 40 CFR Part 60 Subpart Ec Section 60.55c); 60.36e(a)(1)-(2), (c)(1)-(2); 60.37e(a) (referencing 40 CFR Part 60 Subpart Ec Section 60.56c), (a)(1)-(2), (b) (referencing 40 CFR Part 60 Subpart Ec Section 60.56c), (b)(1)-(2), (c)(1)-(4), (d) (referencing 40 CFR Part 60 Subpart Ec Section 60.57c), (e)(1)-(3), (f); 60.38e(a) (referencing 40 CFR Part 60 Subpart Ec Section 60.58c(b)-(g)), (a)(1)-(2), (b)(1)-(2)~~ (July 1, ~~2015~~2016). Designated facilities to which this subpart applies must comply with the minimum requirements in Subpart Ce, as provided in Colorado's 111(d) plan for Existing Hospital/Medical/Infectious Waste Incinerators. Colorado's 111(d) plan for Hospital/Medical/Infectious Waste Incinerators will be submitted to EPA once approved by the Commission and is effective once approved by EPA in 40 CFR Part 62, Subpart G.

Specifically, designated facilities are defined in Section 60.32e and additional definitions are specified in Section 60.31e. Designated facilities must comply with applicable emission limits as provided in Sections 60.33e(a)(1)-(3), (b)(1)-(2), and (c)(1)-(2). Designated facilities must comply with applicable operating training and qualification requirements as specified in Section 60.34e (referencing 40 CFR Part 60 Subpart Ec Section 60.53c). Designated facilities must comply with applicable waste management plan requirements as specified in Section 60.35e (referencing 40 CFR Part 60 Subpart Ec Section 60.55c). Designated facilities must comply with applicable inspection requirements as specified in Section 60.36e(a)(1)-(2), (b), (c)(1)-(2), and (d). Designated facilities must comply with applicable compliance and performance testing requirements as specified in Sections 60.37e(a) (referencing 40 CFR Part 60 Subpart Ec Section 60.56c) or (a)(1)-(2), (b) (referencing 40 CFR Part 60 Subpart Ec Section 60.56c) or (b)(1)-(2), and (c)(1)-(4). Designated facilities must comply with applicable monitoring requirements as specified in Sections 60.37e(d) (referencing 40 CFR Part 60 Subpart Ec Section 60.57c), (e)(1)-(3), and (f). Designated facilities must comply with applicable notification and recordkeeping requirements as specified in Sections 60.32e(b)(1)-(2) and (c)(1)-(3). Designated facilities must comply with applicable reporting and recordkeeping requirements as specified in Sections 60.38e(a) (referencing 40 CFR Part 60 Subpart Ec Section 60.58c(b)-(g)) or (a)(1)-(2) and (b)(1)-(2). Designated facilities must comply with applicable compliance times as specified in Section 60.39e.

The Commission designates the effective date ~~for these emission limits and other requirements (see Colorado 111(d) plan for Existing Hospital/Medical/Infectious Waste Incinerators in Colorado, adopted August 20, 2015, and obtainable from the Air Quality Control Commission Office, for applicable emission limits, compliance times, and other requirements) applicable to designated facilities~~of Colorado's 111(d) plan as the date on which the ~~United States Environmental Protection Agency~~EPA promulgates a final rule in 40 CFR Part 62, Subpart G approving the state plan under Section 111(d) of the Clean Air Act. The compliance schedule for designated facilities can be found in Colorado's 111(d) plan for Existing Hospital/Medical/Infectious Waste Incinerators. Colorado's 111(d) plan for Existing Hospital/Medical/Infectious Waste Incinerators was adopted May 18, 2017, and is obtainable from the Commission Office.

Subpart Cf Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills. 40 CFR Part 60, Subpart Cf (July 1, 2016), as adopted August 29, 2016 (*81 FR 59313*). Designated facilities to which this subpart applies must comply with the minimum requirements in Subpart Cf as provided in Colorado's 111(d) plan for Municipal Solid Waste Landfills. Colorado's 111(d) plan for Existing Municipal Solid Waste Landfills will be submitted to EPA once approved by the Commission and is effective once approved by EPA in 40 CFR Part 62, Subpart G.

Specifically, designated facilities are defined in Section 60.31f and additional definitions are specified in Section 60.41f. Designated facilities must comply with applicable emission limits for designated facilities specified in Section 60.33f. Designated facilities must comply with applicable operational standards for collection and control systems as specified in Section 60.34f. Designated facilities must comply with applicable test methods and procedures and compliance requirements as specified in Sections 60.35f-60.36f. Designated facilities must comply with applicable monitoring requirements as specified in Section 60.37f. Designated facilities must comply with applicable reporting and recordkeeping requirements as specified in Sections 60.38f-60.39f. Designated facilities must comply with applicable requirements for active collective systems as specified in Section 60.40f.

The Commission designates the effective date of Colorado's 111(d) plan as the date on which the EPA promulgates a final rule in 40 CFR Part 62, Subpart G approving the state plan under Section 111(d) of the Clean Air Act. The compliance schedule for designated facilities can be found in Colorado's 111(d) plan for Existing Municipal Solid Waste Landfills. Colorado's 111(d) plan for Existing Municipal Solid Waste Landfills was adopted May 18, 2017, and is obtainable from Commission Office.

Subpart D Standards of Performance for Fossil-Fuel-Fired Steam Generators for which Construction is Commenced after August 17, 1971. 40 CFR Part 60, Subpart D (July 1, ~~2015~~2016).

Subpart Da Standards of Performance for Electric Utility Steam Generators for which Construction is Commenced after September 18, 1978. 40 CFR Part 60, Subpart Da (July 1, ~~2015~~2016)~~, as amended April 6, 2016 (*81 FR 201723*)~~.

(See Regulation Number 6, Part B, Section VIII. and Regulation Number 8, Part E, Subpart UUUUU for additional requirements regarding Electric Utility Steam Generating Units)

Subpart Db Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units. 40 CFR Part 60, Subpart Db (July 1, ~~2015~~2016).

(See Part B, Section III.D. of this Regulation Number 6 for Additional Requirements)

Subpart Dc Standards of Performance for Small Industrial-Commercial- Institutional Steam Generating Units. 40 CFR Part 60, Subpart Dc (July 1, ~~2015~~2016).

Subpart E Standards of Performance for Incinerators. 40 CFR Part 60, Subpart E (July 1, ~~2015~~2016).

(See Part B, Sections V, VI and VII of this Regulation Number 6 for Additional Requirements)

Subpart Ea Standards of Performance for Municipal Waste Combustors For Which Construction Is Commenced After December 20, 1989 and On or Before September 20, 1994. 40 CFR Part 60, Subpart Ea (July 1, ~~2015~~2016).

Subpart Eb Standards of Performance for Municipal Waste Combustors For Which Construction Is Commenced After September 20, 1994. 40 CFR Part 60, Subpart Eb (July 1, ~~2015~~2016).

(See Part B, Section VI of this Regulation Number 6 for Additional Requirements)

Subpart Ec Standards of Performance for Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996. 40 CFR Part 60, Subpart Ec (July 1, ~~2015~~2016).

(See Part B, Section V of this Regulation Number 6 for Additional Requirements)

Subpart F Standards of Performance for Portland Cement Plants. 40 CFR Part 60, Subpart F (July 1, ~~2015~~2016)~~, as amended July 27, 2015 (*80 FR 44772*) and September 11, 2015 (*80 FR 54728*)~~.

Subpart G Standards of Performance for Nitric Acid Plants. 40 CFR Part 60, Subpart G (July 1, ~~2015~~2016).

Subpart Ga Standards of Performance for Nitric Acid Plants for Which Construction, Reconstruction, or Modification Commenced After October 14, 2011. 40 CFR Part 60, Subpart Ga (July 1, ~~2015~~2016).

Subpart H Standards of Performance for Sulfuric Acid Plants. 40 CFR Part 60, Subpart H (July 1, ~~2015~~2016).

Subpart I Standards of Performance for Hot Mix Asphalt Facilities. 40 CFR Part 60, Subpart I (July 1, ~~2015~~2016).

Subpart J Standards of Performance for Petroleum Refineries. 40 CFR Part 60, Subpart J (July 1, ~~2015~~2016)~~, as amended December 1, 2015 (*80 FR 75178*)~~.

Subpart Ja Standards of Performance for Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007. 40 CFR Part 60, Subpart Ja (July 1, ~~2015~~2016), as amended ~~December 1, 2015 (*80 FR 75178*)~~July 13, 2016 (*81 FR 45232*).

Subpart K Standards of Performance for Storage Vessels for Petroleum Liquids Constructed after June 11, 1973 and prior to May 19, 1978. 40 CFR Part 60, Subpart K (July 1, ~~2015~~2016).

Subpart Ka Standards of Performance for Storage Vessels for Petroleum Liquids Constructed after May 18, 1978, and prior to July 23, 1984. 40 CFR Part 60, Subpart Ka (July 1, ~~2015~~2016).

Subpart Kb Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for which Construction, Reconstruction, or Modification Commenced after July 23, 1984. 40 CFR Part 60, Subpart Kb (July 1, ~~2015~~2016).

Subpart L Standards of Performance for Secondary Lead Smelters. 40 CFR Part 60, Subpart L (July 1, ~~2015~~2016).

Subpart M Standards of Performance for Secondary Brass and Bronze Production Plants. 40 CFR Part 60, Subpart M (July 1, ~~2015~~2016).

Subpart N Standards of Performance for Iron and Steel Plants. 40 CFR Part 60, Subpart N (July 1, ~~2015~~2016).

Subpart Na Standards of Performance for Basic Oxygen Process Furnaces. 40 CFR Part 60, Subpart Na (July 1, ~~2015~~2016).

Subpart O Standards of Performance for Sewage Treatment Plants. 40 CFR Part 60, Subpart O (July 1, ~~2015~~2016).

Subpart P Standards of Performance for Primary Copper Smelters. 40 CFR Part 60, Subpart P (July 1, ~~2015~~2016).

Subpart Q Standards of Performance for Primary Zinc Smelters. 40 CFR Part 60, Subpart Q (July 1, ~~2015~~2016).

Subpart R Standards of Performance for Primary Lead Smelters. 40 CFR Part 60, Subpart R (July 1, ~~2015~~2016).

Subpart S Standards of Performance for Primary Aluminum Reduction Plants. 40 CFR Part 60, Subpart S (July 1, ~~2015~~2016).

Subpart T Standards of Performance for the Phosphate Fertilizer Industry: Wet-Process Phosphoric Acid Plants. 40 CFR Part 60, Subpart T (July 1, ~~2015~~2016~~, as amended August 19, 2015 (*80 FR 50386*)~~.

Subpart U Standards of Performance for the Phosphate Fertilizer Industry: Superphosphoric Acid Plants. 40 CFR Part 60, Subpart U (July 1, ~~2015~~2016~~ as amended August 19, 2015 (*80 FR 50386*)~~.

Subpart V Standards of Performance for the Phosphate Fertilizer Industry: Diammonium Phosphate Plants. 40 CFR Part 60, Subpart V (July 1, ~~2015~~2016~~ as amended August 19, 2015 (*80 FR 50386*)~~.

Subpart W Standards of Performance for the Phosphate Fertilizer Industry: Triple Superphosphate Plants. 40 CFR Part 60, Subpart W (July 1, ~~2015~~2016~~ as amended August 19, 2015 (*80 FR 50386*)~~.

Subpart X Standards of Performance for the Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities. 40 CFR Part 60, Subpart X (July 1, ~~2015~~2016~~ as amended August 19, 2015 (*80 FR 50386*)~~.

Subpart Y Standards of Performance for Coal Preparation Plants. 40 CFR Part 60, Subpart Y (July 1, ~~2015~~2016).

Subpart Z Standards of Performance for Ferroalloy Production Facilities. 40 CFR Part 60, Subpart Z (July 1, ~~2015~~2016).

Subpart AA Standards of Performance for Steel Plants: Electric Arc Furnaces Constructed after October 21, 1974, and on or before August 17, 1983. 40 CFR Part 60, Subpart AA (July 1, ~~2015~~2016).

Subpart AAa Standards of Performance for Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed after August 17, 1983. 40 CFR Part 60, Subpart AAa (July 1, ~~2015~~2016).

Subpart BB Standards of Performance for Kraft Pulp Mills. 40 CFR Part 60, Subpart BB (July 1, ~~2015~~2016).

Subpart BBa Standards of Performance for Kraft Pulp Mill Affected Sources for Which Construction, Reconstruction, or Modification Commenced After May 23, ~~2015~~2013. 40 CFR Part 60, Subpart BBa (July 1, ~~2015~~2016)

Subpart CC Standards of Performance for Glass Manufacturing Plants. 40 CFR Part 60, Subpart CC (July 1, ~~2015~~2016).

Subpart DD Standards of Performance for Grain Elevators. 40 CFR Part 60, Subpart DD (July 1, ~~2015~~2016).

Subpart EE Standards of Performance for Surface Coating of Metal Furniture. 40 CFR Part 60, Subpart EE (July 1, ~~2015~~2016).

Subpart GG Standards of Performance for Stationary Gas Turbines. 40 CFR Part 60, Subpart GG (July 1, ~~2015~~2016).

(See Subpart KKKK of this Regulation Number 6 for additional requirements for Stationary Combustion Turbines)

Subpart HH Standards of Performance for Lime Manufacturing Plants. 40 CFR Part 60, Subpart HH (July 1, ~~2015~~2016).

Subpart KK Standards of Performance for Lead-Acid Battery Manufacturing Plants. 40 CFR Part 60, Subpart KK (July 1, ~~2015~~2016).

Subpart LL Standards of Performance for Metallic Mineral Processing Plants. 40 CFR Part 60, Subpart LL (July 1, ~~2015~~2016).

Subpart MM Standards of Performance for Automobile and Light-Duty Truck Surface Coating Operations. 40 CFR Part 60, Subpart MM (July 1, ~~2015~~2016).

Subpart NN Standards of Performance for Phosphate Rock Plants. 40 CFR Part 60, Subpart NN (July 1, ~~2015~~2016).

Subpart PP Standards of Performance for Ammonium Sulfate Manufacture. 40 CFR Part 60, Subpart PP (July 1, ~~2015~~2016).

Subpart QQ Standards of Performance for the Graphic Arts Industry: Publication Rotogravure Printing. 40 CFR Part 60, Subpart QQ (July 1, ~~2015~~2016).

Subpart RR Standards of Performance for Pressure Sensitive Tape and Label Surface Coating Operations. 40 CFR Part 60, Subpart RR (July 1, ~~2015~~2016).

Subpart SS Standards of Performance for Industrial Surface Coating: Large Appliances. 40 CFR Part 60, Subpart SS (July 1, ~~2015~~2016).

Subpart TT Standards of Performance for Metal Coil Surface Coating. 40 CFR Part 60, Subpart TT (July 1, ~~2015~~2016).

Subpart UU Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture. 40 CFR Part 60, Subpart UU (July 1, ~~2015~~2016).

Subpart VV Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for which Construction, Reconstruction or Modification Commenced after January 5, 1981, and on or Before November 7, 2006. 40 CFR Part 60, Subpart VV (July 1, ~~2015~~2016).

Subpart VVa Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for which Construction, Reconstruction or Modification Commenced after November 7, 2006. 40 CFR Part 60, Subpart VVa (July 1, ~~2015~~2016).

Subpart WW Standards of Performance for the Beverage Can Surface Coating Industry. 40 CFR Part 60, Subpart WW (July 1, ~~2015~~2016).

Subpart XX Standards of Performance for Bulk Gasoline Terminals. 40 CFR Part 60, Subpart XX (July 1, ~~2015~~2016).

Subpart BBB Standards of Performance for the Rubber Tire Manufacturing Industry. 40 CFR Part 60, Subpart BBB (July 1, ~~2015~~2016).

Subpart DDD Standards of Performance for Volatile Organic Compound (VOC) Emissions from the Polymer Manufacturing Industry. 40 CFR Part 60, Subpart DDD (July 1, ~~2015~~2016).

Subpart FFF Standards of Performance for Flexible Vinyl and Urethane Coating and Printing. 40 CFR Part 60, Subpart FFF (July 1, ~~2015~~2016).

Subpart GGG Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries for which Construction, Reconstruction, or Modification Commenced After January 4, 1983, and On or Before November 7, 2006. 40 CFR Part 60, Subpart GGG (July 1, ~~2015~~2016).

Subpart GGGa Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries for which Construction, Reconstruction, or Modification Commences After November 7, 2006. 40 CFR Part 60, Subpart GGGa (July 1, ~~2015~~2016).

Subpart HHH Standards of Performance for Synthetic Fiber Production Facilities. 40 CFR Part 60, Subpart HHH (July 1, ~~2015~~2016).

Subpart III Standards of Performance for Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes. 40 CFR Part 60, Subpart III (July 1, ~~2015~~2016).

Subpart JJJ Standards of Performance for Petroleum Dry Cleaners. 40 CFR Part 60, Subpart JJJ (July 1, ~~2015~~2016).

Subpart KKK Standards of Performance for Equipment Leaks of VOC from Onshore Natural Gas Processing Plants. 40 CFR Part 60, Subpart KKK (July 1, ~~2015~~2016).

Subpart LLL Standards of Performance for Onshore Natural Gas Processing: SO2 Emissions. 40 CFR Part 60, Subpart LLL (July 1, ~~2015~~2016).

Subpart NNN Standards of Performance for Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry Distillation Operations. 40 CFR Part 60, Subpart NNN (July 1, ~~2015~~2016).

Subpart OOO Standards of Performance for Nonmetallic Mineral Processing Plants. 40 CFR Part 60, Subpart OOO (July 1, ~~2015~~2016).

Subpart PPP Standards of Performance for Wool Fiberglass Insulation Manufacturing Plants. 40 CFR Part 60, Subpart PPP (July 1, ~~2015~~2016).

Subpart QQQ Standards of Performance for VOC Emissions from Petroleum Refinery Wastewater Systems. 40 CFR Part 60, Subpart QQQ (July 1, ~~2015~~2016).

Subpart RRR Standards of Performance for Volatile Organic Compounds (VOC) Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes. 40 CFR Part 60, Subpart RRR (July 1, ~~2015~~2016).

Subpart SSS Standards of Performance for the Magnetic Tape Manufacturing Industry. 40 CFR Part 60, Subpart SSS (July 1, ~~2015~~2016).

Subpart TTT Standards of Performance for Industrial Surface Coating of Plastic Parts for Business Machines. 40 CFR Part 60, Subpart TTT (July 1, ~~2015~~2016).

Subpart UUU Standards of Performance for Calciners and Dryers in Mineral Industries. 40 CFR Part 60, Subpart UUU (July 1, ~~2015~~2016).

Subpart VVV Standards of Performance for Polymeric Coating of Supporting Substrates. 40 CFR Part 60, Subpart VVV (July 1, ~~2015~~2016).

Subpart WWW Standards of Performance for Municipal Solid Waste Landfills. 40 CFR Part 60, Subpart WWW (July 1, ~~2015~~2016).

Subpart XXX Standards of Performance for Municipal Solid Waste Landfills that Commenced Construction, Reconstruction or Modification after July 17, 2014. 40 CFR Part 60, Subpart XXX (July 1, 2016), as amended August 29, 2016 (*81 FR 59332*).

Subpart AAAA Standards of Performance for Small Municipal Waste Combustion Units for which Construction is Commenced after August 30, 1999 or for which Modification or Reconstruction is Commenced after June 6, 2001. 40 CFR Part 60, Subpart AAAA (July 1, ~~2015~~2016).

Subpart CCCC Standards of Performance for Commercial and Industrial Solid Waste Incineration Units for which Construction is Commenced after November 30, 1999 or for which Modification or Reconstruction is Commenced on or after June 1, 2001. 40 CFR Part 60, Subpart CCCC (July 1, ~~2015~~2016).

Subpart DDDD Emissions Guidelines and Compliance Times for Commercial and Industrial Solid Waste Incineration Units that Commenced Construction On or Before November 30, 1999. 40 CFR Part 60, Subpart DDDD (July 1, ~~2015~~2016). Designated facilities to which this subpart applies must comply with the minimum requirements in Subpart DDDD as provided in Colorado's 111(d) plan for Existing Commercial and Industrial Solid Waste Incineration Units. Colorado's 111(d) plan for Existing Commercial and Industrial Solid Waste Incineration Units will be submitted to EPA once approved by the Commission and is effective once approved by EPA in 40 CFR Part 62, Subpart G.

Specifically, designated facilities are defined in Sections 60.2550 and 60.2555 and additional definitions are specified in Section 60.2875. Designated facilities must comply with applicable emission and operating limits for designated facilities as specified in Sections 60.2670-60.2680. Designated facilities must comply with applicable operator training and qualification requirements are specified in Sections 60.2635-60.2665. Designated facilities must comply with applicable waste management plan requirements as specified in Section 60.2620 and specified in Sections 60.2625 and 60.2630. Designated facilities must comply with applicable performance testing requirements as specified in Sections 60.2690-60.2695. Designated facilities must comply with applicable compliance requirements as specified in Sections 60.2700-60.2725 Designated facilities must comply with applicable monitoring requirements as specified in Sections 60.2730-60.2735. Designated facilities must comply with applicable notification and recordkeeping requirements as specified in Sections 60.2555(a)(1)-(2), (e)(1)-(4), and (f)(1)-(4). Designated facilities must comply with applicable reporting and recordkeeping requirements as specified in Sections 60.2740-60.2800. Designated facilities must comply with applicable air curtain incinerator requirements as specified in Sections 60.2810-60.2870. Designated facilities must comply with applicable compliance times as specified in Section 60.2535.

The Commission designates the effective date of Colorado's 111(d) plan as the date on which the EPA promulgates a final rule in 40 CFR Part 62, Subpart G approving the state plan under Section 111(d) of the Clean Air Act. The compliance schedule for designated facilities can be found in Colorado's 111(d) plan for Existing Commercial and Industrial Solid Waste Incineration Units. Colorado's 111(d) plan for Existing Commercial and Industrial Solid Waste Incineration Units was adopted May 18, 2017, and is obtainable from the Commission Office).

Subpart EEEE Standards of Performance for Other Solid Waste Incineration Units for which Construction is Commenced after December 9, 2004 or for which Modification or Reconstruction is Commenced on or after June 16, 2006. 40 CFR Part 60, Subpart EEEE (July 1, ~~2015~~2016).

Subpart FFFF Emission Guidelines and Compliance Times for Other Solid Waste Incineration Units that Commenced Construction on or before December 9, 2004. 40 CFR Part 60, Subpart FFFF, Sections 60.2991 through 60.2994, 60.3000 through 60.3078, and Tables 1-5 (July 1, ~~2015~~2016).

Subpart HHHH Emission Guidelines and Compliance Times for Coal-Fired Electric Steam Generating Units. Repealed: This rule was vacated by the February 8, 2008 D.C. Circuit Court of Appeals decision.

Subpart IIII Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. 40 CFR Part 60, Subpart IIII, excluding the 100-hour emergency exemption in subsection 60.4211(f)(2)(ii)-(iii) pursuant to the court's decision in *Delaware Dept. of Natural Res. & Envt'l Control, et al. v. EPA*, 785 F. 3d 1 (DC Cir. 2015) (July 1, ~~2015~~2016).

Subpart KKKK Standards of Performance for Stationary Combustion Turbines. 40 CFR Part 60, Subpart KKKK (July 1, ~~2015~~2016).

(See Subpart GG for additional requirements for Stationary Gas Turbines)

Subpart LLLL Standards of Performance for New Sewage Sludge Incineration Unit. 40 CFR Part 60, Subpart LLLL (July 1, ~~2015~~2016).

Subpart MMMM Emission Guidelines and Compliance Times for Existing Sewage Sludge Incineration Units. 40 CFR Part 60, Subpart MMMM (July 1, ~~2015~~2016).

Subpart OOOO Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution. 40 CFR Part 60, Subpart OOOO, (July 1, ~~2015~~2016)~~, as amended August 12, 2015 (80 Fed. Reg. 48262)~~.

APPENDIX A to Part 60 Test Methods. 40 CFR Part 60 (July 1, ~~2015~~2016).

APPENDIX B to Part 60 Performance Specifications. 40 CFR Part 60 (July 1, ~~2015~~2016), as amended July 7, ~~2015~~2016 (*80 FR 38628*).

APPENDIX C to Part 60 Determination of Emission Rate Change. 40 CFR Part 60 (July 1, ~~2015~~2016).

APPENDIX D to Part 60 Required Emission Inventory Information. 40 CFR Part 60 (July 1, ~~2015~~2016).

APPENDIX F to Part 60 Quality Assurance Procedures. 40 CFR Part 60 (July 1, ~~2015~~2016).

APPENDIX I to Part 60 Removable Label and Owner's Manual. 40 CFR Part 60 (July 1, ~~2015~~2016).

STATEMENTS OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE (For Part A)

>>>>>>

XXIV. Adopted May 18, 2017

Background

This Statement of Basis, Specific Statutory Authority, and Purpose complies with the requirements of the Colorado Administrative Procedures Act, Section 24-4-103, C.R.S., the Colorado Air Pollution Prevention and Control Act, Sections 25-7-110 and 25-7-110.5, C.R.S., and the Air Quality Control Commission's ("Commission") Procedural Rules.

Basis

The U.S. Environmental Protection Agency ("EPA") promulgated amendments to 40 C.F.R. Part 60, Subparts Ec, Ja, XXX, CCCC, OOOO, and Appendixes A and B. Additionally, the D.C. Circuit Court of Appeals vacated EPA's 100-hour emergency demand response exemption contained in 40 C.F.R. Part 60, Subpart IIII in *Delaware Dept. of Natural Res. & Envt'l Control ("DNREC"), et al. v. EPA*, 785 F. 3d 1 (D.C. Cir. 2015). The State of Colorado is required under Section 111 of the Clean Air Act ("CAA") to adopt such New Source Performance Standards ("NSPS") into its regulations in order to maintain agency authority with regard to the standards.

Additionally, the EPA promulgated new and revised Emission Guidelines and Compliance Times contained in 40 C.F.R. Part 60, Subparts Ce, Cf, and DDDD. Under Section 111(d) of the Clean Air Act, States must develop and submit to EPA a plan for implementing and enforcing the Emission Guidelines and Compliance Times for existing sources. The 111(d) plans are Colorado-specific plans proposed for EPA approval identifying how to implement the requirements for existing sources under 111(d) and are not themselves regulations or incorporated by reference as regulations.

Specific Statutory Authority

The Colorado Air Pollution Prevention and Control Act, Sections 25-7-105(1)(b) and 25-7-109, C.R.S. authorize the Commission to adopt emission control regulations, including emission control regulations relating to new stationary sources, for the development of an effective air quality control program. Further, Section 25-7-106(6) authorizes the Commission to require testing, monitoring, and recordkeeping.

Purpose

Adoption of the federal rules in 40 C.F.R. Part 60, Subparts Ec, Ja, XXX, CCCC, IIII, OOOO, and Appendixes A and B, makes these rules and revisions enforceable under Colorado law. Additionally, updating citation references of 40 C.F.R. Part 60, Subparts Ce, Cf, and DDDD along with approval of 111(d) plans for Hospital/Medical/Infectious Waste Incinerators ("HMIWI"), Municipal Solid Waste ("MSW") Landfills, and Commercial and Industrial Solid Waste Incineration (CISWI) Units allows the Division to implement and enforce the Emission Guidelines and Compliance Times for these source categories. The 111(d) plans for CISWI Units, HMIWI, and MSW Landfills are consistent with and do not differ from the Model Rules contained in the Emission Guidelines and Compliance Times for these source categories. The Emission Guidelines and Compliance Times and associated 111(d) plans will not be enforceable until approved by the EPA. Until EPA approves these 111(d) plans, existing sources in these source categories would be subject to a federal plan promulgated by EPA, if applicable. The Commission does not intend for these 111(d) plans to apply retroactively. The schedule for sources to comply with the Emission Guidelines and Compliance Times varies depending on when a 111(d) plan or federal plan to take effect. For the CISWI 111(d) plan, affected sources would need to achieve final compliance as expeditiously as practicable after approval of the plan, but no later than the earlier date of February 7, 2018, or three years after the effective date of the approval of the plan. For the HMIWI 111(d) plan, affected sources would need to achieve final compliance no later than three years from EPA approval of the plan, but no later than October 6, 2014. For the MSW Landfill 111(d) plan, affected sources would need to submit an initial design capacity report no later than 90 days after the effective date of EPA's approval of the plan.

Adoption of the rules will not impose additional requirements upon sources beyond the minimum required by federal law and may benefit the regulated community by providing sources with up-to-date information.

Further, these revisions will correct any typographical, grammatical and formatting errors found within the regulation.

AGENDA ITEM CONTROL SHEET

Item Title: Revisions to Regulation Number 6, Part A

Meeting Date: May 18, 2017

TYPES OF ACTION

NON-HEARING ACTIONS	*REQUEST FOR HEARING*	*HEARING*
☐ Administrative	☐ Rulemaking	☒ Rulemaking
☐ Briefing	☐ Public	☐ Public
☐ Policy	☐ Adjudicatory	☐ Adjudicatory
☐ Other	☐ Informational	☐ Informational

Is this action a Rule Review? ☐ Yes ☒ No

RECOMMENDED ACTION

☐ Adoption ☒ Approval ☐ Denial

MOTION

☒ Required ☐ Attached ☐ Not Applicable

STATUTORY AUTHORITY

☐ General ☒ Specific

CRS 25-7-105(1)(b), 25-7-109, and 25-7-106(6)

EPA SUBMITTAL

Is this issue considered a SIP revision? No

Which SIP?

EPA submission deadline:

Is this a delegated program? Yes

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ISSUE STATEMENT:

The Colorado Department of Public Health and Environment, Air Pollution Control Division ("Division") requests that the Colorado Air Quality Control Commission ("Commission") revise Regulation Number 6, Part A to incorporate by reference additions and changes to the U.S. Environmental Protection Agency's ("EPA's") New Source Performance Standards ("NSPS"), Emission Guidelines, and performance specifications in 40 C.F.R. Part 60. Specifically, the Division proposes to update the citation dates and incorporate by reference in full new and revised NSPS, Emissions Guidelines and Compliance Times, and performance specifications as identified in Sections I and II below. Additionally, the Division requests that the Commission approve the attached Clean Air Act ("CAA") Section 111(d) plans as discussed in Sections I and II below. States must develop and submit to the EPA 111(d) plan for implementing and enforcing federal standards on existing sources. The 111(d) plans discussed below are Colorado-specific plans proposed for EPA approval identifying how to implement the requirements for existing sources under CAA Section 111(d) and are not proposed as a regulation or for incorporation by reference into a regulation. The 111(d) plans will not be enforceable until approved by the EPA.

The proposed revisions may also correct any typographical, grammatical, and formatting errors found through the regulation.

SUMMARY:

I. Incorporation by Reference of New NSPS and Emission Guidelines in 40 C.F.R. Part 60 into Regulation Number 6, Part A and Approval of Associated 111(d) plans

Regulation Number 6, Part A, currently incorporates by reference NSPS and Emission Guidelines and Compliance Times codified in 40 C.F.R. Part 60. The Division proposes to adopt the following subparts, which have not previously been adopted.

Regulation 6, Part A, Subpart XXX, Standards of Performance for Municipal Solid Waste ("MSW") Landfills that Commenced Construction, Reconstruction or Modification after July 17, 2014, Subpart Cf, Emission Guidelines and Compliance Times for MSW Landfills, and MSW Landfill 111(d) Plan

On August 29, 2016 (*81 Fed. Reg. 59332* and *81 Fed. Reg. 59276*), the EPA finalized new subparts that update the NSPS for MSW Landfills (40 CFR Part 60, Subpart XXX) and the Emission Guidelines and Compliance Times for MSW Landfills (40 CFR Part 60, Subpart Cf). Rather than merely updating the existing NSPS Subpart WWW, the EPA established the new Subpart XXX, which applies to MSW Landfills for which construction, reconstruction, or modification commenced after July 17, 2014. Similarly, rather than updating the existing Emissions Guidelines and Compliance Times in Subpart Cc, the EPA established the new Subpart Cf, which apply to MSW Landfills that accepted waste after November 8, 1987 and that commenced construction, reconstruction, or modification on or before July 17, 2014.[1]

In addition to incorporating the recent revisions to the NSPS and Emission Guidelines and Compliance Times for MSW Landfills (40 CFR Part 60, Subpart XXX), the Division requests that the Commission approve an updated MSW Landfill) State Plan as required under CAA Section 111(d) in order to allow the Division to implement and enforce the Emission Guidelines and Compliance Times for existing MSW Landfills contained in 40 CFR Part 60, Subpart Cf. The enclosed MSW Landfill 111(d) plan updates the plan submitted to the EPA on April 13, 1998. The supporting documents associated with the enclosed MSW Landfill 111(d) plan will be included with the rulemaking package for the May 18, 2017 Commission hearing.

Adoption of Subpart XXX and the updated MSW Landfill 111(d) plan under Subpart Cf will lower the emissions threshold at which a landfill must install controls. Subparts XXX and Cf retain the design

[1] Consistent with the general approach evinced by CAA section 111, sources currently subject to Subpart WWW would need to continue to comply with the requirements in that rule until they become subject to more stringent requirements in Subpart Cf as implemented through an EPA-approved 111(d) state or federal plan.

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capacity threshold of 2.5 million megagrams ("Mg")[2] and 2.5 million cubic meters ("m3"), but reduce the non-methane organic compounds ("NMOC") emission threshold for the installation and removal of gas collection and control system ("GCCS") from 50 Mg/year to 34 Mg/year. An MSW Landfill that exceeds the design capacity threshold must install and start up a GCCS within 30 months after landfill gas emissions reach or exceed an NMOC level of 34 Mg/yr. Consistent with Subpart WWW, the owner or operator of an MSW Landfill may control the gas by routing it to a non-enclosed flare, an enclosed combustion device, or a treatment system that processes the collected gas for subsequent sale or beneficial use. This action also addresses other regulatory issues including surface emissions monitoring, wellhead monitoring, the definition of landfill gas treatment system, and alternative performance standards for periods of startup, shutdown and malfunction.

There are 16 owners and operators in Colorado that may be subject to these rules and associated 111(d) plan. Upon approval of the state plan under Section 111(d) of the Clean Air Act by the EPA (see Subpart Cf), designated facilities under Subpart Cc will be subject to applicable requirements specified in Subpart Cf.

II. Incorporation by Reference of Amendments to Existing NSPS, Emissions Guidelines and Performance Specifications in 40 C.F.R. Part 60 into Regulation Number 6, Part A and Approval of Associated 111(d) Plans

Regulation Number 6, Part A, currently incorporates by reference NSPS, Emission Guidelines and Compliance Times, and performance specifications codified in 40 C.F.R. Part 60. The Division proposes to amend incorporation dates of subparts already incorporated by reference into Regulation Number 6, Part A. Additionally, the Division proposes to amend subparts already incorporated by reference into Regulation Number 6, Part A, in response to amendments promulgated by the EPA and a recent court decision. These amendments are listed below.

Regulation 6, Part A, Appendixes A and B, Performance Specification 18— Performance Specifications and Test Procedures for Gaseous HCl CEMS at Stationary Sources

On May 19, 2016 (*81 Fed. Reg. 31515*), the EPA finalized revisions to 40 CFR Part 60, Appendixes A, B and F. This action makes several minor technical revisions to the performance specifications for HCl CEMS (Appendixes A and B, Performance Specification 18) that were finalized by the EPA on July 7, 2015 (*80 Fed. Reg. 38628*). However, this action does not adopt the revisions to the quality assurance ("QA") procedures for HCl CEMS used for compliance determinations at stationary sources (Appendix F, Procedure 6), because the EPA withdrew these revisions on August 18, 2016 (*81 Fed. Reg. 52348*) after receiving adverse public comments.

There is one owner/operator in Colorado that may be subject to this rule. The affected systems are those used for determining compliance with emission standards for HCl on a continuous basis as specified in an applicable permit or regulation.

Regulation 6, Part A, Subpart OOOO, Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution for which Construction, Modification or Reconstruction Commenced after August 23, 2011, and on or before September 18, 2015

On June 3, 2016 (*81 Fed. Reg. 35824*), the EPA finalized revisions to 40 CFR Part 60, Subpart OOOO. These revisions concern: requirements for storage vessel control device monitoring and testing; initial compliance requirements for a bypass device that could divert an emission stream away from a control device; recordkeeping requirements for repair logs for control devices failing a visible emissions test; clarification of the due date for the initial annual report; flare design and operation standards; leak detection and repair ("LDAR") for open-ended valves or lines; exemption to the notification requirement for reconstruction; disposal of carbon from control devices; the definition of capital

[2] An Mg is also equal to a metric ton, which is equal to 1.1 U.S. short tons or about 2,205 pounds.

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expenditure; and continuous control device monitoring requirements for storage vessels and centrifugal compressor affected facilities. These amendments are implementation improvements that do not change the requirements for operations currently subject to Subpart OOOO.

There are 230 owners and operators in Colorado that may be subject to this rule. All oil and gas exploration, production, transmission, and distribution owners and operators in Colorado may be subject to these provisions.

Regulation 6, Part A, Subpart CCCC, Standards of Performance for Commercial and Industrial Solid Waste Incineration ("CISWI") Units, Subpart DDDD, Emission Guidelines and Compliance Times for CISWI, and CISWI 111(d) Plan

On June 23, 2016 (*81 Fed.Reg. 40956*), the EPA finalized revisions to 40 CFR Part 60, Subparts CCCC and DDDD. This rule revises the definition of "CEMS data during startup and shutdown periods;" particulate matter ("PM") limits for the waste-burning kiln subcategory; fuel variability factor ("FVF") for coal-burning energy recovery units ("ERUs"); and the definition of "kiln." In addition to proposing these revisions to the NSPS for CISWI (40 CFR Part 60, Subpart CCCC), the Division requests that the Commission approve an updated CISWI 111(d) plan as required under CAA Section 111(d) in order to allow the Division to implement and enforce the Emission Guidelines and Compliance Times for existing CISWI contained in 40 CFR Part 60, Subpart DDDD. The enclosed CISWI 111(d) plan updates the determination made by the Division on May 6, 2002 that there were no existing CISWI in the state (i.e. "Negative Declaration"). The supporting documents associated with the enclosed CISWI 111(d) plan will be included with the rulemaking package for the May 18, 2017 Commission hearing.

This rule revises the definition of "CEMS data during startup and shutdown periods" to be subcategory-specific. For ERUs and waste-burning kilns, the definitions reflect provisions similar to those of the non-waste counterpart National Emission Standards for Hazardous Air Pollutants ("NESHAP") to CISWI (i.e., boilers and cement kilns.) Therefore, ERUs will comply with provisions similar to those in the major source Boiler NESHAP (40 CFR Part 63, Subpart DDDDD), and waste-burning kilns will comply with provisions similar to those in the Portland Cement NESHAP (40 CFR Part 63, Subpart LLL). For incinerators and small remote incinerators, the proposed definition (i.e., from a cold start and up to 48 hours for startup and 24 hours or less for shutdown) will apply.

With respect to PM limits for the waste-burning kiln subcategory, the EPA determined that the test averages, instead of the individual test runs, should be used to establish the standards for new and existing waste-burning kilns. Therefore, this rule sets the final PM emission limits for existing kilns at 13.5 mg/dcsm and the final PM emission limit for new kilns at 4.9 mg/dscm.

With respect to the FVF for coal-burning ERUs, this rule incorporates an FVF and finalizes emission limits for cadmium ("Cd"), HCl, mercury ("Hg"), lead ("Pb"), filterable PM, nitrogen oxides ("NOx") and sulfur dioxide ("SO2").

With respect to the definition of "kiln" this rule finalizes a definition that is consistent with that of Portland Cement NESHAP. The terms "in-line raw mill" and "in-line coal mill" are included in the definition section in the Portland Cement NESHAP and, therefore, have been added to the definitions within the CISWI rule. Furthermore, this rule finalizes the proposed compliance demonstration and ongoing monitoring method for waste-burning kilns that combine emission streams from the in-line raw mill and/or the in-line coal mill and exhaust through multiple stacks. This rule also finalizes clarifying language that makes the monitoring requirements for waste-burning kilns consistent with those in the Portland Cement NESHAP.

There are 3 owners and operators in Colorado that may be subject to these rules and associated CISWI 111(d) plan.

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Regulation 6, Part A, Subpart Ja, Standards of Performance for Petroleum Refineries for which Construction, Reconstruction and Modification Commenced after May 14, 2007

On July 13, 2016 (*81 Fed. Reg. 45232*), the EPA finalized amendments to 40 CFR Part 60, Subpart Ja. This rule finalizes technical corrections and clarifications to the NSPS for Petroleum Refineries.

There is one owner/operator in Colorado that may be subject to this rule.

Regulation 6, Part A, Subpart Ec, Standards of Performance for Hospital/Medical/Infectious Waste Incinerators ("HMIWI"), Subpart Ce, Emission Guidelines and Compliance Times for HMIWI, and HMIWI 111(d) plan

On September 15, 1997, the EPA published Standards of Performance for New Stationary Sources: HMIWI (40 CFR Part 60, Subpart Ec) and Emission Guidelines and Compliance Times for HMIWI (40 CFR Part 60, Subpart Ce). In accordance with CAA Section 111(d), the Commission adopted the Emission Guidelines and Compliance Times for HMIWI on July 18, 1998 and Colorado submitted a HMIWI 111(d) plan to the EPA on December 22, 1998, and October 4, 1999. The EPA approved Colorado's HMIWI 111(d) plan on June 22, 2000. *See* 40 CFR Part 62, Subpart G. Thereafter, on October 6, 2009, and again on April 4, 2011, the EPA revised the Emission Guidelines and Compliance Times for HMIWI, which required States to revise their HMIWI 111(d) plans. In response to these revised Emission Guidelines, the Commission approved an updated HMIWI 111(d) plan and corresponding revisions to Regulation Number 6, Part A, Subpart Ce on August 20, 2015. The updated HMIWI 111(d) plan was submitted to the EPA on October 26, 2015 and the EPA expressed concerns with how Colorado incorporated by reference 40 CFR Part 60, Subpart Ce into Regulation Number 6, Part A and the inclusion of Emission Guideline requirements in Title V permitting.

The Division proposes revisions to Regulation Number 6, Part A, Subpart Ce, Emission Guidelines and Compliance Times for HMIWI, to satisfy the EPA's procedural requirements for incorporations by reference. The Division also proposes revisions in the enclosed HMIWI 111(d) plan to satisfy the EPA's concerns. The supporting documents associated with the enclosed HMIWI 111(d) plan will be included with the rulemaking package for the May 18, 2017 Commission hearing. These revisions will allow the Division to implement and enforce the emission guidelines and compliance times in 40 CFR Part 60, Subpart Ce.

There are no owners and operators in Colorado that may be subject to this rule and associated HMIWI 111(d) plan.

Regulation 6, Part A, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

On May 1, 2015, the DC Circuit Court of Appeals vacated EPA's 100-hour emergency demand response exemptions contained in 40 CFR Part 60, Subpart IIII (NSPS for Stationary Compression Ignition and Spark Ignition Internal Combustion Engines). *See Delaware Dept. of Natural Res. & Envt'l Control ("DNREC"), et al. v. EPA, 785 F. 3d 1; See also* 78 Fed. Reg. 6,6674 (January 30, 2013) ("2013 Rules"). *The DNREC* court invalidated (i.e. remand with vacatur) these 100-hour exemptions on three separate grounds including that EPA failed to respond to utilities' concerns; that it based the rule on "faulty evidence"; and that it failed to consider alternate plans suggested in comments on the proposed rule.[3] As discussed below, the court's decision in *DNREC* requires that the Commission exclude from incorporation by reference these vacated 100-hour emergency exemptions contained in 40 CFR Part 60, Subpart IIII.

[3] The *DNREC* opinion left in place 40 C.F.R. §§ 63.6640(f)(3)-(4), 60.4211(f)(3), and 60.4243(d)(3), which allow for the 50-hour exemption. However, the 50-hour exemption was remanded without vacature in a subsequent court case. *Conservation Law Foundation ("CLF"), et al. v. EPA,* No. 13-233 (September 23, 2015).

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The court's decision in *DNREC* vacated the 100-hour exemptions contained in NSPS Subpart IIII (40 CFR 60.4211(f)(2)(ii)-(iii)) and remanded them to EPA for further action, but otherwise left in place EPA's 2013 Rules setting air toxics limits and NSPS for other pollutants from RICE - primarily diesel generators. Upon issuance of the court's mandate on May 2, 2016, these provisions ceased to have any legal effect. [4] According to a memo issued by the EPA on April 15, 2016, it is the EPA's view that this change means that an engine may not operate in circumstances described in the vacated provisions for any number of hours per year unless it is in compliance with the emission standards and other applicable requirements for a non-emergency engine.[5]

After issuance of this mandate, operation of emergency engines is to be limited to emergency situations as specified in 40 CFR 60.4211(f)(1); maintenance checks and readiness testing for a limited number of hours per year as specified in 40 CFR 60.4211(f)(2)(i); and certain non-emergency situations for a limited number of hours per year as specified in 40 CFR 60.4211(f)(3). For an emergency engine that was operating for the purposes specified in paragraphs 40 CFR 60.4211(f)(2)(ii)-(iii) before the vacatur mandate that becomes a non-emergency engine after the vacatur mandate solely as a result of the operation of those purposes after the vacatur mandate, regulatory requirements including numerical emission limits or work practice standards, notifications, and performance testing may apply. The applicability of regulatory requirements to a particular engine depends on criteria including the engine's type, horsepower, and age, and not every such engine will become subject to notification and testing requirements.

Pursuant to the court's decision in *DNREC*, the Division requests that the Commission exclude from incorporation by reference EPA's vacated 100-hour exemption. Specifically, the Division requests that the Commission exclude from incorporation of NSPS Subpart IIII subsections 60.4211(f)(2)(ii)-(iii).

There are hundreds of owners and operators in Colorado that may be subject to this rule.

ATTACHMENTS:

1. Proposed Rule - Regulation 6, Part A;
2. Statement of Basis, Specific Statutory Authority, and Purpose;
3. Final Economic Impact Analysis (No Analysis Justification);
4. 111(d) Plan for MSW Landfill (January 12, 2017);
5. 111(d) Plan CISWI (January 12, 2017); and
6. 111(d) Plan for HMIWI (January 12, 2017).

CONTACT:

Please contact Sean Hackett, Regulatory Development and Outreach, Planning and Policy Program with the Air Pollution Control Division at 303-692-3131 or at sean.hackett@state.co.us with any questions.

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[4] EPA requested and received a stay of the court's mandate effectuating the vacatur until May 1, 2016 and the court issued the mandate on May 2, 2016.

[5] *See* EPA Guidance on Vacatur of RICE NESHAP and NSPS Provisions for Emergency Engines (April 15, 2016). Available https://www.epa.gov/sites/production/files/2016-06/documents/ricevacaturguidance041516.pdf

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SIGNATURES:

1. _____ 3/17/17

Preparer: Sean Hackett — Date

2. _____ 3/21/17

Supervisor: Dena Wojtach — Date

3. _____ 4/6/17

Planning and Policy Program Manager: Chris Colclasure — Date

4. _____ 4/18/17

Division Director: Garry Kaufman — Date

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MEMORANDUM OF NOTICE

Item Title: Revisions to the Air Quality Control Commission's Regulation Number 6, Part A "Standards of Performance for New Stationary Sources"

Meeting Date: February 16, 2017

GENERAL DESCRIPTION

The Colorado Department of Public Health and Environment, Air Pollution Control Division ("Division") requests that the Colorado Air Quality Control Commission ("Commission") revise Regulation Number 6, Part A to incorporate by reference additions and changes to the U.S. Environmental Protection Agency's ("EPA's") New Source Performance Standards ("NSPS"), Emission Guidelines, and performance specifications in 40 C.F.R. Part 60. Specifically, the Division proposes to update the citation dates and incorporate by reference in full new and revised NSPS, Emissions Guidelines and Compliance Times, and performance specifications. Additionally, the Division requests that the Commission approve the attached Clean Air Act ("CAA") Section 111(d) plans. States must develop and submit to the EPA 111(d) plans for implementing and enforcing federal standards on existing sources. The 111(d) plans discussed below are Colorado-specific plans proposed for EPA approval identifying how to implement the requirements for existing sources under CAA Section 111(d) and are not proposed as a regulation or for incorporation by reference into a regulation. The 111(d) plans will not be enforceable until approved by the EPA.

The proposed revisions may also correct any typographical, grammatical, and formatting errors found through the regulation.

WHAT IS IN THIS PACKAGE?

This rulemaking package includes the language of the proposed changes to Regulation Number 6, Part A. This package also includes the Statements of Basis, Specific Authority, and Purpose and justification for why an economic impact statement is not required. Additionally, this package includes revised 111(d) plans for Municipal Solid Waste ("MSW") Landfills and Hospital/Medical/Infectious/Waste Incinerators ("HMIWI") and a new 111(d) plan for Commercial and Industrial Solid Waste Incineration ("CISWI") Units. The supporting documents associated with these 111(d) plans will be included with the rulemaking package for the May 18, 2017 Commission hearing.

EXPLANATION OF THE PROPOSED RULE

The Division proposes to incorporate by reference the EPA promulgated amendments to NSPS and performance specifications at 40 C.F.R. Part 60, Subparts Ec, Ja, XXX, CCCC, IIII, OOOO, and Appendixes A and B into Regulation Number 6, Part A. Additionally, the Division requests that the Commission adopt new and revised Emission Guidelines and Compliance Times contained in 40 C.F.R. Part 60, Subparts Ce, Cf, and DDDD and approve the associated 111(d) plan revisions for MSW Landfills and HMIWI as well as the new 111(d) plan for CISWI Units.

MATERIALS CONTAINED IN THE PROPOSED RULE

The redline-strikeout version of the proposed revisions to Regulation Number 6, Part A is attached.

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PUBLIC MEETINGS

The Division held no public meetings for this rulemaking prior to the Request for Hearing before the Commission. This proposal incorporates by reference federal NSPS, Emission Guidelines, and performance specifications which is not typically a controversial process. However, the Division may hold a meeting or meetings if requested during the rulemaking process.

BACKGROUND ON THE DEVELOPMENT OF THE RULEMAKING PROPOSAL

What is the problem?

The EPA promulgated new and amended NSPS, Emissions Guidelines and Compliance Times, and performance specifications that Colorado needs to adopt in order to maintain delegation of authority to implement these rules. Regulation Number 6, Part A, currently incorporates by reference NSPS codified in 40 C.F.R. Part 60. The Division proposes to update the citation dates of subparts already incorporated by reference into Regulation Number 6, Part A in response to amendments promulgated by the EPA. Specifically, the Division proposes to update new and amended NSPS and performance specifications in 40 C.F.R. Part 60, Subparts Ec, Ja, XXX, CCCC, OOOO, and Appendixes A and B. The Division proposes to fully adopt these rules, by incorporating them by reference into Regulation Number 6, Part A. Additionally, regarding Colorado's 111(d) plans for CISWI Units, HMIWI, and MSW Landfills, the EPA revised the Emission Guidelines and Compliance Times for these source categories (40 C.F.R. Part 60, Subparts DDDD, Ce, and Cf, respectively), which requires States to revise their 111(d) plans.

In addition to updating new and amended NSPS, Emission Guidelines and Compliance Times, and performance specifications in response to amendments promulgated by the EPA, the Division proposes to exclude certain provisions of 40 C.F.R. Part 60, Subpart IIII in response to the court's decision in *Delaware Dept. of Natural Res. & Envt'l Control ("DNREC"), et al. v. EPA*, 785 F. 3d 1 (D.C. Cir. 2015). On May 1, 2015, the DC Circuit Court of Appeals vacated EPA's 100-hour emergency demand response exemptions contained in 40 CFR Part 60, Subpart IIII (NSPS for Stationary Compression Ignition and Spark Ignition Internal Combustion Engines). *See DNREC"), et al. v. EPA, 785 F. 3d 1; See also* 78 Fed. Reg. 6,6674 (January 30, 2013) ("2013 Rules"). *The DNREC* court invalidated (i.e. remand with vacatur) these 100-hour exemptions on three separate grounds including that EPA failed to respond to utilities' concerns; that it based the rule on "faulty evidence"; and that it failed to consider alternate plans suggested in comments on the proposed rule.[1] As discussed below, the court's decision in *DNREC* requires that the Commission exclude from incorporation by reference these vacated 100-hour emergency exemptions contained in 40 CFR Part 60, Subpart IIII.

The court's decision in *DNREC* vacated the 100-hour exemptions contained in NSPS Subpart IIII (40 CFR 60.4211(f)(2)(ii)-(iii)) and remanded them to EPA for further action, but otherwise left in place EPA's 2013 Rules setting air toxics limits and NSPS for other pollutants from RICE - primarily diesel generators. Upon issuance of the court's mandate on May 2, 2016, these provisions ceased to have any legal effect. [2] According to a memo issued by the EPA on April 15, 2016, it is the EPA's view that this change means that an engine may not operate in circumstances described in the vacated provisions for any number of hours per year unless it is in compliance with the emission standards and other applicable requirements for a non-emergency engine.[3]

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[1] The *DNREC* opinion left in place 40 C.F.R. §§ 63.6640(f)(3)-(4), 60.4211(f)(3), and 60.4243(d)(3), which allow for the 50-hour exemption. However, the 50-hour exemption was remanded without vacatur in a subsequent court case. *Conservation Law Foundation ("CLF"), et al. v. EPA,* No. 13-233 (September 23, 2015).

[2] EPA requested and received a stay of the court's mandate effectuating the vacatur until May 1, 2016 and the court issued the mandate on May 2, 2016.

[3] *See* EPA Guidance on Vacatur of RICE NESHAP and NSPS Provisions for Emergency Engines (April 15, 2016). Available https://www.epa.gov/sites/production/files/2016-06/documents/ricevacaturguidance041516.pdf

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After issuance of this mandate, operation of emergency engines is to be limited to emergency situations as specified in 40 CFR 60.4211(f)(1); maintenance checks and readiness testing for a limited number of hours per year as specified in 40 CFR 60.4211(f)(2)(i); and certain non-emergency situations for a limited number of hours per year as specified in 40 CFR 60.4211(f)(3). For an emergency engine that was operating for the purposes specified in paragraphs 40 CFR 60.4211(f)(2)(ii)-(iii) before the vacatur mandate that becomes a non-emergency engine after the vacatur mandate solely as a result of the operation of those purposes after the vacatur mandate, regulatory requirements including numerical emission limits or work practice standards, notifications, and performance testing may apply. The applicability of regulatory requirements to a particular engine depends on criteria including the engine's type, horsepower, and age, and not every such engine will become subject to notification and testing requirements.

Pursuant to the court's decision in *DNREC*, the Division requests that the Commission exclude from incorporation by reference EPA's vacated 100-hour exemption. Specifically, the Division proposes that the Commission exclude from incorporation of NSPS Subpart IIII subsections 60.4211(f)(2)(ii)-(iii).

Adoption of these revised NSPS, Emission Guidelines and Compliance Times, and performance specifications, along with approval of the corresponding 111(d) plans, creates regulatory certainty for sources. If Colorado does not adopt the new NSPS, the EPA will continue to be responsible for administering them. Thus, sources may be required to work with two different regulatory agencies in complying with air quality requirements administered under the Clean Air Act. For NSPS and performance specifications previously adopted by Colorado that have been amended by the EPA, state requirements would differ from federal requirements if Colorado does not adopt these amendments. Additionally, if the Commission does not adopt the Emission Guidelines and Compliance Times and if the Commission and the EPA do not approve the associated 111(d) plans for CISWI Units, HMIWI, and MSW Landfills, the EPA will implement and enforce the Emission Guidelines and Compliance Times for these source categories under a federal plan.

How does this proposed rule help solve the problem?

The proposed revisions to Regulation Number 6, Part A maintain updated citations of the federal rules incorporated by reference. The proposed revisions to Regulation Number 6, Part A incorporate by reference new and revised NSPS and performance specifications in 40 C.F.R. Part 60, Subparts Ec, Ja, XXX, CCCC, IIII, OOOO, and Appendixes A and B. These revisions maintain consistency between Regulation Number 6, Part A and federal law, allowing Colorado to administer these rules. Additionally, adoption of the Emission Guidelines and Compliance Times contained in 40 C.F.R. Part 60, Subparts Ce, Cf, and DDDD and approval of the associated 111(d) plans for CISWI Units, HMIWI, and MSW Landfills will allow the Division to implement and enforce the Emissions Guidelines and Compliance Times for these source categories.

How was the rule developed?

NSPS, Emission Guidelines, and performance specifications amendments in 40 C.F.R. Part 60 were noticed and discussed at the federal level. The Division is proposing to update citation references by incorporating by reference, fully adopting, revised NSPS and performance specifications. The 111(d) plans for CISWI Units, HMIWI, and MSW Landfills are consistent with and do not differ from the Model Rules contained in the Emission Guidelines and Compliance Times for these source categories.

How does the rule affect the public, regulated community, and other agencies?

Updating citation references and adopting by incorporating by reference applicable amendments to NSPS and performance specifications in Regulation Number 6, Part A will make the corresponding federal rules enforceable under Colorado law.

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Adoption of the amendments to existing NSPS and performance specifications will not impose upon sources additional requirements beyond the minimum required by federal law, and may benefit the regulated community by providing sources with up-to-date information. Additionally, updating citation references and adopting by incorporating by reference new and revised Emission Guidelines and Compliance Times along with EPA approval of the associated 111(d) plans for CISWI Units, HMIWI, and MSW Landfills will allow the Division to implement and enforce the Emissions Guidelines and Compliance Times for these source categories. Until the EPA approves these 111(d) plans, the associated Emission Guidelines and Compliance Times will be enforced by the EPA under a federal plan.

How does the rule compare to federal requirements or adjacent state requirements?

Federal requirements:

By updating NSPS, Emission Guidelines, and performance specifications citation references in Regulation Number 6, Part A and incorporating by reference new federal standards and amendments to existing standards in Regulation Number 6, Part A, Colorado will maintain consistency between state and federal law. Additionally, approval of the 111(d) plans for CISWI Units, HMIWI, and MSW Landfills will allow the Division to implement and enforce the Emissions Guidelines and Compliance Times for these source categories.

Other State requirements:

Colorado has adopted many of the same federal NSPS as Arizona, New Mexico, and Utah. Similar to Colorado, it is common practice to periodically update citation references among these states. Arizona, New Mexico, and Utah have incorporated by reference all federal NSPS subparts that Colorado is proposing to adopt except Subparts Ce, Cf, XXX, and DDDD as of December 27, 2016.

Regarding 111(d) plans, Arizona and Utah have the EPA-approved 111(d) plan for HMIWI and MSW Landfills, but not CISWI Units because there are no CISWI Units in those states (i.e. negative declarations.) New Mexico has an EPA-approved 111(d) plan for MSW Landfills, but not for HMIWI or CISWI Units because there are no HMIWI or CISWI Units in the state.

How will the rule be implemented?

The new and amended NSPS and performance specifications will be implemented through Regulation Number 6, Part A. These amendments are self-implementing. Division personnel will be informed of these changes to ensure that the changes are reflected in applicable permitting and regulatory actions.

Regarding Emission Guidelines and Compliance Times and associated 111(d) plans, the Division cannot implement and enforce the new and revised Emission Guidelines and Compliance Times, along with the associated 111(d) plans for CISWI Units, HMIWI, and MSW Landfills, until EPA approves these 111(d) plans. Until EPA approves these 111(d) plans, existing sources in these source categories would be subject to a federal plan promulgated by EPA, if applicable. The schedule for sources to comply with the Emission Guidelines and Compliance Times is contingent upon when the 111(d) plans are approved by EPA. For the CISWI 111(d) plan, affected sources would need to achieve final compliance as expeditiously as practicable after approval of the plan, but no later than the earlier date of February 7, 2018, or three years after the effective date of the approval of the plan. For the HMIWI 111(d) plan, affected sources would need to achieve final compliance no later than three years from EPA approval of the plan, but no later than October 6, 2014. For the MSW Landfill 111(d) plan, affected sources would need to submit an initial design capacity report no later than 90 days after the effective date of EPA's approval of the plan. Once the EPA approves the 111(d) plans for CISWI units, HMIWI, and MSW Landfills, the Division may conduct additional outreach to notify affected sources.

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Are there time constraints?

No specific time constraints apply to the full adoption of NSPS rules and amendments or approval of the 111(d) plans.

Range of Regulatory Alternatives

The Commission could choose to adopt the proposal, adopt only certain elements of the proposal, partially adopt some or all of the NSPS, Emission Guidelines, and performance specifications in question, or not adopt the proposal. Examples of adopting some but not all elements of the proposal and/or partial adoption include: not updating citation references, not adopting specific NSPS proposed for incorporation by reference, not fully adopting specific NSPS proposed for incorporation by reference (meaning adopting the NSPS as it would apply to some subset of the regulated community), etc. Additionally, the Commission could choose to not approve the 111(d) plans. All of these scenarios potentially create regulatory uncertainty as to what agency is administering what rule or what rule version, as well as potentially creating dual administration of two different rules between Colorado and the EPA.

What if the Air Quality Control Commission does not adopt the proposed rule?

If Colorado does not periodically update citation dates of NSPS, Colorado runs the risk of not maintaining consistency with federal requirements and creating regulatory uncertainty. If the Commission does not adopt the new standards in 40 C.F.R. Part 60, these NSPS will be implemented by the EPA. If the Commission does not adopt amendments to existing standards in 40 CFR Part 60, Colorado regulations would differ from federal law, causing regulatory inconsistency for the public, regulated community, and other agencies. Further, both Colorado and the EPA may be responsible for implementing different and possibly conflicting versions of the same NSPS. If the Commission does not approve the proposed 111(d) plans for HMIWI, CISWI Units, and MSW Landfills, the EPA will implement and enforce the Emission Guidelines and Compliance Times for these source categories, under a federal plan.

Contact for more information:

Please contact Sean Hackett, Regulatory Development and Outreach, Planning and Policy Program with the Air Pollution Control Division at 303-692-3131 or at sean.hackett@state.co.us with any questions.

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ECONOMIC IMPACT ANALYSIS
(Initial Analysis)

Item Title: **Revisions to the Air Quality Control Commission's Regulation Number 6, Part A "Standards of Performance for New Stationary Sources"**

Meeting Date: **February 16, 2017**

ISSUE

The Colorado Department of Public Health and Environment, Air Pollution Control Division ("Division") requests that the Colorado Air Quality Control Commission ("Commission") revise Regulation Number 6, Part A to incorporate by reference additions and changes to the U.S. Environmental Protection Agency's ("EPA's") New Source Performance Standards ("NSPS"), Emission Guidelines, and performance specifications in 40 C.F.R. Part 60. Specifically, the Division proposes to update the citation dates and incorporate by reference in full new and revised NSPS, Emission Guidelines and Compliance Times, and performance specifications. Additionally, the Division requests that the Commission approve the attached Clean Air Act ("CAA") Section 111(d) plans. States must develop and submit to the EPA 111(d) plans for implementing and enforcing federal standards on existing sources. The 111(d) plans discussed below are Colorado-specific plans proposed for EPA approval identifying how to implement the requirements for existing sources under CAA Section 111(d) and are not proposed as a regulation or for incorporation by reference into a regulation. The 111(d) plans will not be enforceable until approved by the EPA.

REQUIREMENTS FOR ECONOMIC IMPACT ANALYSIS ("EIA")

Section 25-7-110.5(4)(a), C.R.S. sets forth the requirements for the initial and final Economic Impact Analysis, as stated below:

> Before any permanent rule is proposed pursuant to this section, an initial economic impact analysis shall be conducted in compliance with this subsection (4) of the proposed rule or alternative proposed rules. Such economic impact analysis shall be in writing, developed by the proponent, or the Division in cooperation with the proponent and made available to the public at the time any request for hearing on a proposed rule is heard by the commission. A final economic impact analysis shall be in writing and delivered to the technical secretary and to all parties of record five working days prior to the prehearing conference. If no prehearing conference is scheduled, the economic impact analysis shall be submitted at least ten working days before the date of the rule-making hearing. The proponent of an alternative proposal will provide, in conjunction with the Division, a final economic impact analysis five working days prior to the prehearing conference. The economic impact analyses shall be based upon reasonably available data. Except where data is not reasonably available, or as otherwise provided in this section, the failure to provide an economic impact analysis of any noticed proposed rule or any alternative proposed rule will preclude such proposed rule or alternative proposed rule from being considered by the Commission. Nothing in this section shall be construed to restrict the Commission's authority to consider alternative proposals and alternative economic impact analyses that have not been submitted prior to the prehearing conference for good cause and so long as parties have adequate time to review them.

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Per Section 25-7-110.5(2), C.R.S., the requirements of Section 25-7-110.5(4) shall not apply to rules which: (1) adopt by reference applicable federal rules; (2) adopt rules to implement prescriptive state statutory requirements where the AQCC is allowed no significant policy-making options; or, (3) adopt rules that have no regulatory impact on any person, facility or activity.

DISCUSSION

The Division requests that the Commission revise Regulation Number 6, Part A to incorporate by reference additions and changes to the EPA's NSPS, Emission Guidelines and Compliance Times, and performance specifications in 40 C.F.R., Part 60 in response to amendments promulgated by the EPA.

Specifically, the Division proposes to update the citation dates and incorporate by reference, fully adopting, new and amended NSPS and performance specifications in Regulation Number 6, Part A. New and amended NSPS and performance specifications include 40 C.F.R. Part 60, Subparts Ec, Ja, XXX, CCCC, OOOO, and Appendixes A and B.

Additionally, the Division requests that the Commission approve 111(d) plans for Hospital/Medical/Infectious Waste Incinerators ("HMIWI"), Commercial and Industrial Solid Waste Incineration ("CISWI") Units and Municipal Solid Waste ("MSW") Landfills and the Emission Guidelines and Compliance Times for these source categories (40 C.F.R. Part 60, Subparts DDDD, Ce, and Cf, respectively). The 111(d) plans are Colorado-specific plans proposed for EPA approval identifying how to implement the requirements for existing sources under CAA Section 111(d) and are not proposed as a regulation or for incorporation by reference into a regulation. The 111(d) plans will not be enforceable until approved by the EPA.

In addition to updating new and amended NSPS, Emission Guidelines and Compliance Times, and performance specifications in response to amendments promulgated by the EPA, the Division proposes to exclude certain provisions of 40 C.F.R. Part 60, Subpart IIII in response to the court's decision in *Delaware Dept. of Natural Res. & Envt'l Control ("DNREC"), et al. v. EPA*, 785 F. 3d 1 (D.C. Cir. 2015). On May 1, 2015, the DC Circuit Court of Appeals vacated EPA's 100-hour emergency demand response exemptions contained in 40 CFR Part 60, Subpart IIII (NSPS for Stationary Compression Ignition and Spark Ignition Internal Combustion Engines). *See DNREC"), et al. v. EPA, 785 F. 3d 1; See also* 78 Fed. Reg. 6,6674 (January 30, 2013) ("2013 Rules"). *The DNREC* court invalidated (i.e. remand with vacatur) these 100-hour exemptions on three separate grounds including that EPA failed to respond to utilities' concerns; that it based the rule on "faulty evidence"; and that it failed to consider alternate plans suggested in comments on the proposed rule.[1] As discussed below, the court's decision in *DNREC* requires that the Commission exclude from incorporation by reference these vacated 100-hour emergency exemptions contained in 40 CFR Part 60, Subpart IIII.

The court's decision in *DNREC* vacated the 100-hour exemptions contained in NSPS Subpart IIII (40 CFR 60.4211(f)(2)(ii)-(iii)) and remanded them to EPA for further action, but otherwise left in place EPA's 2013 Rules setting air toxics limits and NSPS for other pollutants from RICE - primarily diesel generators. Upon issuance of the court's mandate on May 2, 2016, these provisions ceased to have any legal effect. [2]

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[1] The *DNREC* opinion left in place 40 C.F.R. §§ 63.6640(f)(3)-(4), 60.4211(f)(3), and 60.4243(d)(3), which allow for the 50-hour exemption. However, the 50-hour exemption was remanded without vacatur in a subsequent court case. *Conservation Law Foundation ("CLF"), et al. v. EPA,* No. 13-233 (September 23, 2015).

[2] EPA requested and received a stay of the court's mandate effectuating the vacatur until May 1, 2016 and the court issued the mandate on May 2, 2016.

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According to a memo issued by the EPA on April 15, 2016, it is the EPA's view that this change means that an engine may not operate in circumstances described in the vacated provisions for any number of hours per year unless it is in compliance with the emission standards and other applicable requirements for a non-emergency engine.[3]

After issuance of this mandate, operation of emergency engines is to be limited to emergency situations as specified in 40 CFR 60.4211(f)(1); maintenance checks and readiness testing for a limited number of hours per year as specified in 40 CFR 60.4211(f)(2)(i); and certain non-emergency situations for a limited number of hours per year as specified in 40 CFR 60.4211(f)(3). For an emergency engine that was operating for the purposes specified in paragraphs 40 CFR 60.4211(f)(2)(ii)-(iii) before the vacatur mandate that becomes a non-emergency engine after the vacatur mandate solely as a result of the operation of those purposes after the vacatur mandate, regulatory requirements including numerical emission limits or work practice standards, notifications, and performance testing may apply. The applicability of regulatory requirements to a particular engine depends on criteria including the engine's type, horsepower, and age, and not every such engine will become subject to notification and testing requirements.

Pursuant to the court's decision in *DNREC*, the Division requests that the Commission exclude from incorporation by reference EPA's vacated 100-hour exemption. Specifically, the Division proposes that the Commission exclude from incorporation of NSPS Subpart IIII subsections 60.4211(f)(2)(ii)-(iii).

SUMMARY AND CONCLUSION

Because these rules adopt by reference applicable federal rules, an economic impact statement is not required.

[3] *See* EPA Guidance on Vacatur of RICE NESHAP and NSPS Provisions for Emergency Engines (April 15, 2016). Available https://www.epa.gov/sites/production/files/2016-06/documents/ricevacaturguidance041516.pdf

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Colorado's Air Quality Control Commission Meeting
May 18, 2017

Regulation 6, Part A

Air Pollution Control Division's Proposal
Errata Sheet

The Air Pollution Control Division (Division) is revising the Regulation Number 6 proposal to remove the proposed incorporation by reference of landfill related rules contained in 40 CFR Part 60, Subparts XXX and Cf and the associated CAA Section 111(d) State Plan. On May 17, 2017, the Division was made aware of the attached May 5, 2017 letter from Scott Pruitt, EPA Administrator, committing to reconsidering and putting into place a 90 day stay of effectiveness for the entirety of both EPA's Standards of Performance for Municipal Solid Waste Landfills (81FR59332, August 29, 2016) as well as EPA's Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills (81FR59276, August 29, 2016). Consequently, the Division is withdrawing all references to 40 CFR Part 60, Subparts XXX and Cf contained in the proposed regulator rule language and statement of basis and purpose as well as the associated State Plan.

The Division intends to track this reconsideration process and will propose any final rules, with any necessary revised to Colorado's State Plan at a later date.

This Errata Sheet provides a summary of this proposed addition for the record.

The Division's currently proposed rule language and Statement of Basis should be revised as follows:

DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

Air Quality Control Commission

REGULATION NUMBER 6

Standards of Performance for New Stationary Sources

5 CCR 1001-8

[Editor's Notes follow the text of the rules at the end of this CCR Document.]

PART A

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Subpart Cc Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills. 40 CFR Part 60, Subpart Cc (July 1, 2016).

In addition for clarification regarding requirements applicable to existing municipal solid waste landfills, designated facilities as defined in 40 CFR Part 60, Section 60.32c which meet the condition in 40 CFR Part 60, Section 60.33c(a)(1) shall submit to the Division an initial design capacity report and an initial emission rate report in accordance with 40 CFR Part 60, Section 60.757 within 90 days of the effective date of this regulation. If the design capacity report reflects that the facility meets the condition in 40 CFR Part 60, Section 60.33c(a)(2) and the initial NMOC emission rate report reflects that the facility meets the condition in 40 CFR Part 60, Section 60.33c(a)(3), the facility shall comply with the collection and control system requirements in 40 CFR Part 60, Section 60.752(b)(2)(ii), applicable control device requirements in 40 CFR Part 60, Section 60.33c(c)(1), (2) and (3), test methods and procedures requirements in 40 CFR 60.754, operational standards in 40 CFR Part 60, Section 60.753, compliance provisions in 40 CFR Part 60, Section 60.755, monitoring provisions in 40 CFR Part 60, Section 60.756 and reporting and recordkeeping provisions in 40 CFR Part 60, Sections 60.757 and 60.758, respectively. Such facilities must complete installation of air emission collection and control equipment capable of meeting the requirements of this subpart no later than 30 months from the effective date of these requirements or the date on which the source becomes subject to this subpart pursuant to 40 CFR Part 60, Section 60.36c(b) (the date on which the condition in 60.33c(a)(3) is met (i.e., the date of the first annual report in which the non-methane organic compounds emission rate equals or exceeds 50 megagrams per year)), whichever occurs later. These facilities must submit a final collection and control system design plan pursuant to 40 CFR Part 60, Section 60.757(c) within one year of the effective date of these requirements, which must be reviewed and approved by the state. The final collection and control system design plan must specify: (1) the date by which contracts for control systems/process modifications shall be awarded, (which shall be no later than 20 months after the effective date); (2) the date by which on-site construction or installation of the air pollution control device(s) or process changes will begin, (which shall be no later than 24 months after the effective date); and (3) the date by which the construction or installation of the air pollution control device(s) or process changes will be complete (which shall be no later than 30 months after the effective date). In addition, the plan shall include site-specific design plans for the gas collection and control system(s). These facilities shall comply with the approved final collection and control system design plan and shall demonstrate compliance with these emission standards in accordance with 40 CFR Part 60, Section 60.8 not later than 180 days following initial startup of the collection and control system.

The Commission designates the effective date of Colorado's 111(d) plan, including the state emission standard for existing municipal solid waste landfills, as the date on which the EPA promulgates a final rule approving the state plan under Section 111(d) of the Clean Air Act. ~~The Clean Air Act Section 111(d) plan implementing Subpart Cc will remain in effect until EPA approves the 111(d) plan implementing Subpart Cf as identified in 40 C.F.R. Part 62, Subpart G. Upon approval of the 111(d) plan by EPA (see Subpart Cf), designated facilities under Subpart Cc will be subject to applicable requirements specified in Subpart Cf.~~

Subpart Ce Emission Guidelines and Compliance Times for Hospital/Medical/Infectious Waste Incinerators. 40 CFR Part 60, Subpart Ce (July 1, 2016). Designated facilities to which this subpart applies must comply with the minimum requirements in Subpart Ce, as provided in Colorado's 111(d) plan for Existing Hospital/Medical/Infectious Waste Incinerators. Colorado's 111(d) plan for Hospital/Medical/Infectious Waste Incinerators

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will be submitted to EPA once approved by the Commission and is effective once approved by EPA in 40 CFR Part 62, Subpart G.

Specifically, designated facilities are defined in Section 60.32e and additional definitions are specified in Section 60.31e. Designated facilities must comply with applicable emission limits as provided in Sections 60.33e(a)(1)-(3), (b)(1)-(2), and (c)(1)-(2). Designated facilities must comply with applicable operating training and qualification requirements as specified in Section 60.34e (referencing 40 CFR Part 60 Subpart Ec Section 60.53c). Designated facilities must comply with applicable waste management plan requirements as specified in Section 60.35e (referencing 40 CFR Part 60 Subpart Ec Section 60.55c). Designated facilities must comply with applicable inspection requirements as specified in Section 60.36e(a)(1)-(2), (b), (c)(1)-(2), and (d). Designated facilities must comply with applicable compliance and performance testing requirements as specified in Sections 60.37e(a) (referencing 40 CFR Part 60 Subpart Ec Section 60.56c) or (a)(1)-(2), (b) (referencing 40 CFR Part 60 Subpart Ec Section 60.56c) or (b)(1)-(2), and (c)(1)-(4). Designated facilities must comply with applicable monitoring requirements as specified in Sections 60.37e(d) (referencing 40 CFR Part 60 Subpart Ec Section 60.57c), (e)(1)-(3), and (f). Designated facilities must comply with applicable notification and recordkeeping requirements as specified in Sections 60.32e(b)(1)-(2) and (c)(1)-(3). Designated facilities must comply with applicable reporting and recordkeeping requirements as specified in Sections 60.38e(a) (referencing 40 CFR Part 60 Subpart Ec Section 60.58c(b)-(g)) or (a)(1)-(2) and (b)(1)-(2). Designated facilities must comply with applicable compliance times as specified in Section 60.39e.

The Commission designates the effective date of Colorado's 111(d) plan as the date on which the EPA promulgates a final rule in 40 CFR Part 62, Subpart G approving the state plan under Section 111(d) of the Clean Air Act. The compliance schedule for designated facilities can be found in Colorado's 111(d) plan for Existing Hospital/Medical/Infectious Waste Incinerators. Colorado's 111(d) plan for Existing Hospital/Medical/Infectious Waste Incinerators was adopted May 18, 2017, and is obtainable from the Commission Office.

~~Subpart Cf — Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills. 40 CFR Part 60, Subpart Cf (July 1, 2016), as adopted August 29, 2016 (*81 FR 59313*). Designated facilities to which this subpart applies must comply with the minimum requirements in Subpart Cf as provided in Colorado's 111(d) plan for Municipal Solid Waste Landfills. Colorado's 111(d) plan for Existing Municipal Solid Waste Landfills will be submitted to EPA once approved by the Commission and is effective once approved by EPA in 40 CFR Part 62, Subpart G.~~

~~Specifically, designated facilities are defined in Section 60.31f and additional definitions are specified in Section 60.41f. Designated facilities must comply with applicable emission limits for designated facilities specified in Section 60.33f. Designated facilities must comply with applicable operational standards for collection and control systems as specified in Section 60.34f. Designated facilities must comply with applicable test methods and procedures and compliance requirements as specified in Sections 60.35f-60.36f. Designated facilities must comply with applicable monitoring requirements as specified in Section 60.37f. Designated facilities must comply with applicable reporting and recordkeeping requirements as specified in Sections 60.38f-60.39f. Designated facilities must comply with applicable requirements for active collective systems as specified in Section 60.40f.~~

~~The Commission designates the effective date of Colorado's 111(d) plan as the date on which the EPA promulgates a final rule in 40 CFR Part 62, Subpart G approving the state plan under Section 111(d) of the Clean Air Act. The compliance schedule for designated facilities can be found in Colorado's 111(d) plan for Existing Municipal Solid Waste~~

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~~Landfills. Colorado's 111(d) plan for Existing Municipal Solid Waste Landfills was adopted May 18, 2017, and is obtainable from Commission Office.~~

Subpart D Standards of Performance for Fossil-Fuel-Fired Steam Generators for which Construction is Commenced after August 17, 1971. 40 CFR Part 60, Subpart D (July 1, 2016).

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Subpart WWW Standards of Performance for Municipal Solid Waste Landfills. 40 CFR Part 60, Subpart WWW (July 1, 2016).

~~Subpart XXX Standards of Performance for Municipal Solid Waste Landfills that Commenced Construction, Reconstruction or Modification after July 17, 2014. 40 CFR Part 60, Subpart XXX (July 1, 2016), as amended August 29, 2016 (*81 FR 59332*).~~

Subpart AAAA Standards of Performance for Small Municipal Waste Combustion Units for which Construction is Commenced after August 30, 1999 or for which Modification or Reconstruction is Commenced after June 6, 2001. 40 CFR Part 60, Subpart AAAA (July 1, 2016).

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DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

Air Quality Control Commission

REGULATION NUMBER 6

STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

5 CCR 1001-8

PART A

STATEMENTS OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE (For Part A)

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XXIV. Adopted May 18, 2017

Background

This Statement of Basis, Specific Statutory Authority, and Purpose complies with the requirements of the Colorado Administrative Procedures Act, Section 24-4-103, C.R.S., the Colorado Air Pollution Prevention and Control Act, Sections 25-7-110 and 25-7-110.5, C.R.S., and the Air Quality Control Commission's ("Commission") Procedural Rules.

Basis

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The U.S. Environmental Protection Agency ("EPA") promulgated amendments to 40 C.F.R. Part 60, Subparts Ec, Ja, ~~XXX,~~ CCCC, OOOO, and Appendixes A and B. Additionally, the D.C. Circuit Court of Appeals vacated EPA's 100-hour emergency demand response exemption contained in 40 C.F.R. Part 60, Subpart IIII in *Delaware Dept. of Natural Res. & Envt'l Control ("DNREC"), et al. v. EPA, 785 F. 3d 1 (D.C. Cir. 2015).* The State of Colorado is required under Section 111 of the Clean Air Act ("CAA") to adopt such New Source Performance Standards ("NSPS") into its regulations in order to maintain agency authority with regard to the standards.

Additionally, the EPA promulgated new and revised Emission Guidelines and Compliance Times contained in 40 C.F.R. Part 60, Subparts Ce, ~~Cf,~~ and DDDD. Under Section 111(d) of the Clean Air Act, States must develop and submit to EPA a plan for implementing and enforcing the Emission Guidelines and Compliance Times for existing sources. The 111(d) plans are Colorado-specific plans proposed for EPA approval identifying how to implement the requirements for existing sources under 111(d) and are not themselves regulations or incorporated by reference as regulations.

Specific Statutory Authority

The Colorado Air Pollution Prevention and Control Act, Sections 25-7-105(1)(b) and 25-7-109, C.R.S. authorize the Commission to adopt emission control regulations, including emission control regulations relating to new stationary sources, for the development of an effective air quality control program. Further, Section 25-7-106(6) authorizes the Commission to require testing, monitoring, and recordkeeping.

Purpose

Adoption of the federal rules in 40 C.F.R. Part 60, Subparts Ec, Ja, ~~XXX,~~ CCCC, IIII, OOOO, and Appendixes A and B, makes these rules and revisions enforceable under Colorado law. Additionally, updating citation references of 40 C.F.R. Part 60, Subparts Ce~~, Cf,~~ and DDDD along with approval of 111(d) plans for Hospital/Medical/Infectious Waste Incinerators ("HMIWI")~~, Municipal Solid Waste ("MSW") Landfills,~~ and Commercial and Industrial Solid Waste Incineration (CISWI) Units allows the Division to implement and enforce the Emission Guidelines and Compliance Times for these source categories. The 111(d) plans for CISWI Units~~,~~ and HMIWI~~, and MSW Landfills~~ are consistent with and do not differ from the Model Rules contained in the Emission Guidelines and Compliance Times for these source categories. The Emission Guidelines and Compliance Times and associated 111(d) plans will not be enforceable until approved by the EPA. Until EPA approves these 111(d) plans, existing sources in these source categories would be subject to a federal plan promulgated by EPA, if applicable. The Commission does not intend for these 111(d) plans to apply retroactively. The schedule for sources to comply with the Emission Guidelines and Compliance Times varies depending on when a 111(d) plan or federal plan to take effect. For the CISWI 111(d) plan, affected sources would need to achieve final compliance as expeditiously as practicable after approval of the plan, but no later than the earlier date of February 7, 2018, or three years after the effective date of the approval of the plan. For the HMIWI 111(d) plan, affected sources would need to achieve final compliance no later than three years from EPA approval of the plan, but no later than October 6, 2014. ~~For the MSW Landfill 111(d) plan, affected sources would need to submit an initial design capacity report no later than 90 days after the effective date of EPA's approval of the plan.~~

Adoption of the rules will not impose additional requirements upon sources beyond the minimum required by federal law and may benefit the regulated community by providing sources with up-to-date information.

Further, these revisions will correct any typographical, grammatical and formatting errors found within the regulation.

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DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

Air Quality Control Commission

REGULATION NUMBER 6

Standards of Performance for New Stationary Sources

5 CCR 1001-8

[Editor's Notes follow the text of the rules at the end of this CCR Document.]

PART A

Federal Register Regulations Adopted by Reference

The regulations promulgated by the United States Environmental Protection Agency (EPA) listed below, found in Part 60, Chapter I, Title 40 of the Code of Federal Regulations (CFR) and in effect as of the dates indicated, but not including later amendments, were adopted by the Colorado Air Quality Control Commission and are hereby incorporated by reference. Copies of the material incorporated by reference are available for public inspection during regular business hours at the Office of the Commission, located at 4300 Cherry Creek Drive South, Denver, Colorado 80246-1530. Parties wishing to inspect these materials should contact the Technical Secretary of the Commission, located at the Office of the Commission. The material incorporated by reference is also available through the United States Government Printing Office, online at www.gpo.gov/fdsys.

All new sources of air pollution and all modified or reconstructed sources of air pollution shall comply with the standards, criteria, and requirements set forth herein. For the purpose of this regulation, the word "Administrator" as used in Part 60, Chapter I, Title 40, of the CFR shall mean the Colorado Air Pollution Control Division, except that in the sections in Table 1, "Administrator" shall mean both the Administrator of the Environmental Protection Agency or his authorized representative and the Colorado Air Pollution Control Division.

TABLE 1

40 CFR Part 60 Subpart*	Section(s)
A	60.8(b)(2) and (b)(3) and those sections throughout the standards that reference 60.8(b)(2) and (b)(3), 60.11(b) and (e).
Da	60.45a.
Ka	60.114a.
Kb	60.111b(f)(4), 60.114b, 60.116b (e)(3)(iii) and (e)(3)(iv), 60.116b(f)(2)(iii).
S	60.195(b).
DD	60.302(d)(3).
GG	60.332(a)(3), 60.335(a).

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40 CFR Part 60 Subpart*	Section(s)
VV	60.482-1(c)(2), 60.484.
WW	60.493(b)(2)(i)(A), 60.496(a)(1).
XX	60.502(e)(6).
GGG	60.592(c).
JJJ	60.623.
KKK	60.634.

*And any other section which 40 CFR Part 60 specifically states will not be delegated to the States.

Subpart A General Provisions. 40 CFR Part 60, Subpart A (July 1, ~~2015~~2016).

(See Part B of this Regulation Number 6 for Additional Requirements Regarding Modifications)

Subpart Cb Emission Guidelines and Compliance Times for Existing Sources: Municipal Waste Combustors That Are Constructed On or Before September 20, 1994. 40 CFR Part 60, Subpart Cb (July 1, ~~2015~~2016).

Subpart Cc Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills. 40 CFR Part 60, Subpart Cc (July 1, ~~2015~~2016).

In addition for clarification regarding requirements applicable to existing municipal solid waste landfills, designated facilities as defined in 40 CFR Part 60, Section 60.32c which meet the condition in 40 CFR Part 60, Section 60.33c(a)(1) shall submit to the Division an initial design capacity report and an initial emission rate report in accordance with 40 CFR Part 60, Section 60.757 within 90 days of the effective date of this regulation. If the design capacity report reflects that the facility meets the condition in 40 CFR Part 60, Section 60.33c(a)(2) and the initial NMOC emission rate report reflects that the facility meets the condition in 40 CFR Part 60, Section 60.33c(a)(3), the facility shall comply with the collection and control system requirements in 40 CFR Part 60, Section 60.752(b)(2)(ii), applicable control device requirements in 40 CFR Part 60, Section 60.33c(c)(1), (2) and (3), test methods and procedures requirements in 40 CFR 60.754, operational standards in 40 CFR Part 60, Section 60.753, compliance provisions in 40 CFR Part 60, Section 60.755, monitoring provisions in 40 CFR Part 60, Section 60.756 and reporting and recordkeeping provisions in 40 CFR Part 60, Sections 60.757 and 60.758, respectively. Such facilities must complete installation of air emission collection and control equipment capable of meeting the requirements of this subpart no later than 30 months from the effective date of these requirements or the date on which the source becomes subject to this subpart pursuant to 40 CFR Part 60, Section 60.36c(b) (the date on which the condition in 60.33c(a)(3) is met (i.e., the date of the first annual report in which the non-methane organic compounds emission rate equals or exceeds 50 megagrams per year)), whichever occurs later. These facilities must submit a final collection and control system design plan pursuant to 40 CFR Part 60, Section 60.757(c) within one year of the effective date of these requirements, which must be reviewed and approved by the state. The final collection and control system design plan must specify: (1) the date by which contracts for control systems/process modifications shall be awarded, (which shall be no later than 20 months after the effective date); (2) the date by which on-site construction or installation of the air pollution control device(s) or process changes will begin, (which shall be no later than 24 months after the effective date); and (3) the date by which the construction or installation of the air pollution control device(s) or process changes will be complete (which shall be no later than 30 months after the effective date). In addition, the plan shall include site-specific design

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plans for the gas collection and control system(s). These facilities shall comply with the approved final collection and control system design plan and shall demonstrate compliance with these emission standards in accordance with 40 CFR Part 60, Section 60.8 not later than 180 days following initial startup of the collection and control system.

The Commission designates the effective date ~~for these requirements applicable to designated facilities~~of Colorado's 111(d) plan, including the state emission standard for existing municipal solid waste landfills, as the date on which the ~~United States Environmental Protection Agency~~EPA promulgates a final rule approving the state plan under Section 111(d) of the Clean Air Act.

Subpart Ce Emission Guidelines and Compliance Times for Hospital/Medical/Infectious Waste Incinerators. 40 CFR Part 60, Subpart Ce~~, paragraphs 60.30e; 60.31e; 60.32e; 60.33e(a)(1)-(3), (b)(1)-(2), (c)(1)-(2); 60.34e (referencing 40 CFR Part 60 Subpart Ec Section 60.53c); 60.35e (referencing 40 CFR Part 60 Subpart Ec Section 60.55c); 60.36e(a)(1)-(2), (c)(1)-(2); 60.37e(a) (referencing 40 CFR Part 60 Subpart Ec Section 60.56c), (a)(1)-(2), (b) (referencing 40 CFR Part 60 Subpart Ec Section 60.56c), (b)(1)-(2), (c)(1)-(4), (d) (referencing 40 CFR Part 60 Subpart Ec Section 60.57c), (e)(1)-(3), (f); 60.38e(a) (referencing 40 CFR Part 60 Subpart Ec Section 60.58c(b)-(g)), (a)(1)-(2), (b)(1)-(2)~~ (July 1, ~~2015~~2016). Designated facilities to which this subpart applies must comply with the minimum requirements in Subpart Ce, as provided in Colorado's 111(d) plan for Existing Hospital/Medical/Infectious Waste Incinerators. Colorado's 111(d) plan for Hospital/Medical/Infectious Waste Incinerators will be submitted to EPA once approved by the Commission and is effective once approved by EPA in 40 CFR Part 62, Subpart G.

Specifically, designated facilities are defined in Section 60.32e and additional definitions are specified in Section 60.31e. Designated facilities must comply with applicable emission limits as provided in Sections 60.33e(a)(1)-(3), (b)(1)-(2), and (c)(1)-(2). Designated facilities must comply with applicable operating training and qualification requirements as specified in Section 60.34e (referencing 40 CFR Part 60 Subpart Ec Section 60.53c). Designated facilities must comply with applicable waste management plan requirements as specified in Section 60.35e (referencing 40 CFR Part 60 Subpart Ec Section 60.55c). Designated facilities must comply with applicable inspection requirements as specified in Section 60.36e(a)(1)-(2), (b), (c)(1)-(2), and (d). Designated facilities must comply with applicable compliance and performance testing requirements as specified in Sections 60.37e(a) (referencing 40 CFR Part 60 Subpart Ec Section 60.56c) or (a)(1)-(2), (b) (referencing 40 CFR Part 60 Subpart Ec Section 60.56c) or (b)(1)-(2), and (c)(1)-(4). Designated facilities must comply with applicable monitoring requirements as specified in Sections 60.37e(d) (referencing 40 CFR Part 60 Subpart Ec Section 60.57c), (e)(1)-(3), and (f). Designated facilities must comply with applicable notification and recordkeeping requirements as specified in Sections 60.32e(b)(1)-(2) and (c)(1)-(3). Designated facilities must comply with applicable reporting and recordkeeping requirements as specified in Sections 60.38e(a) (referencing 40 CFR Part 60 Subpart Ec Section 60.58c(b)-(g)) or (a)(1)-(2) and (b)(1)-(2). Designated facilities must comply with applicable compliance times as specified in Section 60.39e.

The Commission designates the effective date ~~for these emission limits and other requirements (see Colorado 111(d) plan for Existing Hospital/Medical/Infectious Waste Incinerators in Colorado, adopted August 20, 2015, and obtainable from the Air Quality Control Commission Office, for applicable emission limits, compliance times, and other requirements) applicable to designated facilities~~of Colorado's 111(d) plan as the date on which the ~~United States Environmental Protection Agency~~EPA promulgates a final rule in 40 CFR Part 62, Subpart G approving the state plan under Section 111(d) of the Clean Air Act. The compliance schedule for designated facilities can be found in Colorado's 111(d) plan for Existing Hospital/Medical/Infectious Waste Incinerators. Colorado's 111(d) plan for Existing Hospital/Medical/Infectious Waste Incinerators was adopted May 18, 2017, and is obtainable from the Commission Office.

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Subpart D Standards of Performance for Fossil-Fuel-Fired Steam Generators for which Construction is Commenced after August 17, 1971. 40 CFR Part 60, Subpart D (July 1, ~~2015~~2016).

Subpart Da Standards of Performance for Electric Utility Steam Generators for which Construction is Commenced after September 18, 1978. 40 CFR Part 60, Subpart Da (July 1, ~~2015~~2016)~~, as amended April 6, 2016 (*81 FR 201723*)~~.

(See Regulation Number 6, Part B, Section VIII. and Regulation Number 8, Part E, Subpart UUUUU for additional requirements regarding Electric Utility Steam Generating Units)

Subpart Db Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units. 40 CFR Part 60, Subpart Db (July 1, ~~2015~~2016).

(See Part B, Section III.D. of this Regulation Number 6 for Additional Requirements)

Subpart Dc Standards of Performance for Small Industrial-Commercial- Institutional Steam Generating Units. 40 CFR Part 60, Subpart Dc (July 1, ~~2015~~2016).

Subpart E Standards of Performance for Incinerators. 40 CFR Part 60, Subpart E (July 1, ~~2015~~2016).

(See Part B, Sections V, VI and VII of this Regulation Number 6 for Additional Requirements)

Subpart Ea Standards of Performance for Municipal Waste Combustors For Which Construction Is Commenced After December 20, 1989 and On or Before September 20, 1994. 40 CFR Part 60, Subpart Ea (July 1, ~~2015~~2016).

Subpart Eb Standards of Performance for Municipal Waste Combustors For Which Construction Is Commenced After September 20, 1994. 40 CFR Part 60, Subpart Eb (July 1, ~~2015~~2016).

(See Part B, Section VI of this Regulation Number 6 for Additional Requirements)

Subpart Ec Standards of Performance for Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996. 40 CFR Part 60, Subpart Ec (July 1, ~~2015~~2016).

(See Part B, Section V of this Regulation Number 6 for Additional Requirements)

Subpart F Standards of Performance for Portland Cement Plants. 40 CFR Part 60, Subpart F (July 1, ~~2015~~2016)~~, as amended July 27, 2015 (*80 FR 44772*) and September 11, 2015 (*80 FR 54728*)~~.

Subpart G Standards of Performance for Nitric Acid Plants. 40 CFR Part 60, Subpart G (July 1, ~~2015~~2016).

Subpart Ga Standards of Performance for Nitric Acid Plants for Which Construction, Reconstruction, or Modification Commenced After October 14, 2011. 40 CFR Part 60, Subpart Ga (July 1, ~~2015~~2016).

Subpart H Standards of Performance for Sulfuric Acid Plants. 40 CFR Part 60, Subpart H (July 1, ~~2015~~2016).

Subpart I Standards of Performance for Hot Mix Asphalt Facilities. 40 CFR Part 60, Subpart I (July 1, ~~2015~~2016).

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Subpart J Standards of Performance for Petroleum Refineries. 40 CFR Part 60, Subpart J (July 1, ~~2015~~2016)~~, as amended December 1, 2015 (*80 FR 75178*)~~.

Subpart Ja Standards of Performance for Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007. 40 CFR Part 60, Subpart Ja (July 1, ~~2015~~2016), as amended ~~December 1, 2015 (*80 FR 75178*)~~July 13, 2016 (*81 FR 45232*).

Subpart K Standards of Performance for Storage Vessels for Petroleum Liquids Constructed after June 11, 1973 and prior to May 19, 1978. 40 CFR Part 60, Subpart K (July 1, ~~2015~~2016).

Subpart Ka Standards of Performance for Storage Vessels for Petroleum Liquids Constructed after May 18, 1978, and prior to July 23, 1984. 40 CFR Part 60, Subpart Ka (July 1, ~~2015~~2016).

Subpart Kb Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for which Construction, Reconstruction, or Modification Commenced after July 23, 1984. 40 CFR Part 60, Subpart Kb (July 1, ~~2015~~2016).

Subpart L Standards of Performance for Secondary Lead Smelters. 40 CFR Part 60, Subpart L (July 1, ~~2015~~2016).

Subpart M Standards of Performance for Secondary Brass and Bronze Production Plants. 40 CFR Part 60, Subpart M (July 1, ~~2015~~2016).

Subpart N Standards of Performance for Iron and Steel Plants. 40 CFR Part 60, Subpart N (July 1, ~~2015~~2016).

Subpart Na Standards of Performance for Basic Oxygen Process Furnaces. 40 CFR Part 60, Subpart Na (July 1, ~~2015~~2016).

Subpart O Standards of Performance for Sewage Treatment Plants. 40 CFR Part 60, Subpart O (July 1, ~~2015~~2016).

Subpart P Standards of Performance for Primary Copper Smelters. 40 CFR Part 60, Subpart P (July 1, ~~2015~~2016).

Subpart Q Standards of Performance for Primary Zinc Smelters. 40 CFR Part 60, Subpart Q (July 1, ~~2015~~2016).

Subpart R Standards of Performance for Primary Lead Smelters. 40 CFR Part 60, Subpart R (July 1, ~~2015~~2016).

Subpart S Standards of Performance for Primary Aluminum Reduction Plants. 40 CFR Part 60, Subpart S (July 1, ~~2015~~2016).

Subpart T Standards of Performance for the Phosphate Fertilizer Industry: Wet-Process Phosphoric Acid Plants. 40 CFR Part 60, Subpart T (July 1, ~~2015~~2016)~~, as amended August 19, 2015 (*80 FR 50386*)~~.

Subpart U Standards of Performance for the Phosphate Fertilizer Industry: Superphosphoric Acid Plants. 40 CFR Part 60, Subpart U (July 1, ~~2015~~2016)~~ as amended August 19, 2015 (*80 FR 50386*)~~.

Subpart V Standards of Performance for the Phosphate Fertilizer Industry: Diammonium Phosphate Plants. 40 CFR Part 60, Subpart V (July 1, ~~2015~~2016)~~ as amended August 19, 2015 (*80 FR 50386*)~~.

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Subpart W Standards of Performance for the Phosphate Fertilizer Industry: Triple Superphosphate Plants. 40 CFR Part 60, Subpart W (July 1, ~~2015~~2016)~~ as amended August 19, 2015 (*80 FR 50386*)~~.

Subpart X Standards of Performance for the Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities. 40 CFR Part 60, Subpart X (July 1, ~~2015~~2016)~~ as amended August 19, 2015 (*80 FR 50386*)~~.

Subpart Y Standards of Performance for Coal Preparation Plants. 40 CFR Part 60, Subpart Y (July 1, ~~2015~~2016).

Subpart Z Standards of Performance for Ferroalloy Production Facilities. 40 CFR Part 60, Subpart Z (July 1, ~~2015~~2016).

Subpart AA Standards of Performance for Steel Plants: Electric Arc Furnaces Constructed after October 21, 1974, and on or before August 17, 1983. 40 CFR Part 60, Subpart AA (July 1, ~~2015~~2016).

Subpart AAa Standards of Performance for Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed after August 17, 1983. 40 CFR Part 60, Subpart AAa (July 1, ~~2015~~2016).

Subpart BB Standards of Performance for Kraft Pulp Mills. 40 CFR Part 60, Subpart BB (July 1, ~~2015~~2016).

Subpart BBa Standards of Performance for Kraft Pulp Mill Affected Sources for Which Construction, Reconstruction, or Modification Commenced After May 23, ~~2015~~2013. 40 CFR Part 60, Subpart BBa (July 1, ~~2015~~2016)

Subpart CC Standards of Performance for Glass Manufacturing Plants. 40 CFR Part 60, Subpart CC (July 1, ~~2015~~2016).

Subpart DD Standards of Performance for Grain Elevators. 40 CFR Part 60, Subpart DD (July 1, ~~2015~~2016).

Subpart EE Standards of Performance for Surface Coating of Metal Furniture. 40 CFR Part 60, Subpart EE (July 1, ~~2015~~2016).

Subpart GG Standards of Performance for Stationary Gas Turbines. 40 CFR Part 60, Subpart GG (July 1, ~~2015~~2016).

(See Subpart KKKK of this Regulation Number 6 for additional requirements for Stationary Combustion Turbines)

Subpart HH Standards of Performance for Lime Manufacturing Plants. 40 CFR Part 60, Subpart HH (July 1, ~~2015~~2016).

Subpart KK Standards of Performance for Lead-Acid Battery Manufacturing Plants. 40 CFR Part 60, Subpart KK (July 1, ~~2015~~2016).

Subpart LL Standards of Performance for Metallic Mineral Processing Plants. 40 CFR Part 60, Subpart LL (July 1, ~~2015~~2016).

Subpart MM Standards of Performance for Automobile and Light-Duty Truck Surface Coating Operations. 40 CFR Part 60, Subpart MM (July 1, ~~2015~~2016).

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Subpart NN Standards of Performance for Phosphate Rock Plants. 40 CFR Part 60, Subpart NN (July 1, ~~2015~~2016).

Subpart PP Standards of Performance for Ammonium Sulfate Manufacture. 40 CFR Part 60, Subpart PP (July 1, ~~2015~~2016).

Subpart QQ Standards of Performance for the Graphic Arts Industry: Publication Rotogravure Printing. 40 CFR Part 60, Subpart QQ (July 1, ~~2015~~2016).

Subpart RR Standards of Performance for Pressure Sensitive Tape and Label Surface Coating Operations. 40 CFR Part 60, Subpart RR (July 1, ~~2015~~2016).

Subpart SS Standards of Performance for Industrial Surface Coating: Large Appliances. 40 CFR Part 60, Subpart SS (July 1, ~~2015~~2016).

Subpart TT Standards of Performance for Metal Coil Surface Coating. 40 CFR Part 60, Subpart TT (July 1, ~~2015~~2016).

Subpart UU Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture. 40 CFR Part 60, Subpart UU (July 1, ~~2015~~2016).

Subpart VV Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for which Construction, Reconstruction or Modification Commenced after January 5, 1981, and on or Before November 7, 2006. 40 CFR Part 60, Subpart VV (July 1, ~~2015~~2016).

Subpart VVa Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for which Construction, Reconstruction or Modification Commenced after November 7, 2006. 40 CFR Part 60, Subpart VVa (July 1, ~~2015~~2016).

Subpart WW Standards of Performance for the Beverage Can Surface Coating Industry. 40 CFR Part 60, Subpart WW (July 1, ~~2015~~2016).

Subpart XX Standards of Performance for Bulk Gasoline Terminals. 40 CFR Part 60, Subpart XX (July 1, ~~2015~~2016).

Subpart BBB Standards of Performance for the Rubber Tire Manufacturing Industry. 40 CFR Part 60, Subpart BBB (July 1, ~~2015~~2016).

Subpart DDD Standards of Performance for Volatile Organic Compound (VOC) Emissions from the Polymer Manufacturing Industry. 40 CFR Part 60, Subpart DDD (July 1, ~~2015~~2016).

Subpart FFF Standards of Performance for Flexible Vinyl and Urethane Coating and Printing. 40 CFR Part 60, Subpart FFF (July 1, ~~2015~~2016).

Subpart GGG Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries for which Construction, Reconstruction, or Modification Commenced After January 4, 1983, and On or Before November 7, 2006. 40 CFR Part 60, Subpart GGG (July 1, ~~2015~~2016).

Subpart GGGa Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries for which Construction, Reconstruction, or Modification Commences After November 7, 2006. 40 CFR Part 60, Subpart GGGa (July 1, ~~2015~~2016).

Subpart HHH Standards of Performance for Synthetic Fiber Production Facilities. 40 CFR Part 60, Subpart HHH (July 1, ~~2015~~2016).

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Subpart III Standards of Performance for Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes. 40 CFR Part 60, Subpart III (July 1, ~~2015~~2016).

Subpart JJJ Standards of Performance for Petroleum Dry Cleaners. 40 CFR Part 60, Subpart JJJ (July 1, ~~2015~~2016).

Subpart KKK Standards of Performance for Equipment Leaks of VOC from Onshore Natural Gas Processing Plants. 40 CFR Part 60, Subpart KKK (July 1, ~~2015~~2016).

Subpart LLL Standards of Performance for Onshore Natural Gas Processing: SO2 Emissions. 40 CFR Part 60, Subpart LLL (July 1, ~~2015~~2016).

Subpart NNN Standards of Performance for Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry Distillation Operations. 40 CFR Part 60, Subpart NNN (July 1, ~~2015~~2016).

Subpart OOO Standards of Performance for Nonmetallic Mineral Processing Plants. 40 CFR Part 60, Subpart OOO (July 1, ~~2015~~2016).

Subpart PPP Standards of Performance for Wool Fiberglass Insulation Manufacturing Plants. 40 CFR Part 60, Subpart PPP (July 1, ~~2015~~2016).

Subpart QQQ Standards of Performance for VOC Emissions from Petroleum Refinery Wastewater Systems. 40 CFR Part 60, Subpart QQQ (July 1, ~~2015~~2016).

Subpart RRR Standards of Performance for Volatile Organic Compounds (VOC) Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes. 40 CFR Part 60, Subpart RRR (July 1, ~~2015~~2016).

Subpart SSS Standards of Performance for the Magnetic Tape Manufacturing Industry. 40 CFR Part 60, Subpart SSS (July 1, ~~2015~~2016).

Subpart TTT Standards of Performance for Industrial Surface Coating of Plastic Parts for Business Machines. 40 CFR Part 60, Subpart TTT (July 1, ~~2015~~2016).

Subpart UUU Standards of Performance for Calciners and Dryers in Mineral Industries. 40 CFR Part 60, Subpart UUU (July 1, ~~2015~~2016).

Subpart VVV Standards of Performance for Polymeric Coating of Supporting Substrates. 40 CFR Part 60, Subpart VVV (July 1, ~~2015~~2016).

Subpart WWW Standards of Performance for Municipal Solid Waste Landfills. 40 CFR Part 60, Subpart WWW (July 1, ~~2015~~2016).

Subpart AAAA Standards of Performance for Small Municipal Waste Combustion Units for which Construction is Commenced after August 30, 1999 or for which Modification or Reconstruction is Commenced after June 6, 2001. 40 CFR Part 60, Subpart AAAA (July 1, ~~2015~~2016).

Subpart CCCC Standards of Performance for Commercial and Industrial Solid Waste Incineration Units for which Construction is Commenced after November 30, 1999 or for which Modification or Reconstruction is Commenced on or after June 1, 2001. 40 CFR Part 60, Subpart CCCC (July 1, ~~2015~~2016).

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Subpart DDDD Emissions Guidelines and Compliance Times for Commercial and Industrial Solid Waste Incineration Units that Commenced Construction On or Before November 30, 1999. 40 CFR Part 60, Subpart DDDD (July 1, ~~2015~~2016). Designated facilities to which this subpart applies must comply with the minimum requirements in Subpart DDDD as provided in Colorado's 111(d) plan for Existing Commercial and Industrial Solid Waste Incineration Units. Colorado's 111(d) plan for Existing Commercial and Industrial Solid Waste Incineration Units will be submitted to EPA once approved by the Commission and is effective once approved by EPA in 40 CFR Part 62, Subpart G.

Specifically, designated facilities are defined in Sections 60.2550 and 60.2555 and additional definitions are specified in Section 60.2875. Designated facilities must comply with applicable emission and operating limits for designated facilities as specified in Sections 60.2670-60.2680. Designated facilities must comply with applicable operator training and qualification requirements are specified in Sections 60.2635-60.2665. Designated facilities must comply with applicable waste management plan requirements as specified in Section 60.2620 and specified in Sections 60.2625 and 60.2630. Designated facilities must comply with applicable performance testing requirements as specified in Sections 60.2690-60.2695. Designated facilities must comply with applicable compliance requirements as specified in Sections 60.2700-60.2725 Designated facilities must comply with applicable monitoring requirements as specified in Sections 60.2730-60.2735. Designated facilities must comply with applicable notification and recordkeeping requirements as specified in Sections 60.2555(a)(1)-(2), (e)(1)-(4), and (f)(1)-(4). Designated facilities must comply with applicable reporting and recordkeeping requirements as specified in Sections 60.2740-60.2800. Designated facilities must comply with applicable air curtain incinerator requirements as specified in Sections 60.2810-60.2870. Designated facilities must comply with applicable compliance times as specified in Section 60.2535.

The Commission designates the effective date of Colorado's 111(d) plan as the date on which the EPA promulgates a final rule in 40 CFR Part 62, Subpart G approving the state plan under Section 111(d) of the Clean Air Act. The compliance schedule for designated facilities can be found in Colorado's 111(d) plan for Existing Commercial and Industrial Solid Waste Incineration Units. Colorado's 111(d) plan for Existing Commercial and Industrial Solid Waste Incineration Units was adopted May 18, 2017, and is obtainable from the Commission Office).

Subpart EEEE Standards of Performance for Other Solid Waste Incineration Units for which Construction is Commenced after December 9, 2004 or for which Modification or Reconstruction is Commenced on or after June 16, 2006. 40 CFR Part 60, Subpart EEEE (July 1, ~~2015~~2016).

Subpart FFFF Emission Guidelines and Compliance Times for Other Solid Waste Incineration Units that Commenced Construction on or before December 9, 2004. 40 CFR Part 60, Subpart FFFF, Sections 60.2991 through 60.2994, 60.3000 through 60.3078, and Tables 1-5 (July 1, ~~2015~~2016).

Subpart HHHH Emission Guidelines and Compliance Times for Coal-Fired Electric Steam Generating Units. Repealed: This rule was vacated by the February 8, 2008 D.C. Circuit Court of Appeals decision.

Subpart IIII Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. 40 CFR Part 60, Subpart IIII, excluding the 100-hour emergency exemption in subsection 60.4211(f)(2)(ii)-(iii) pursuant to the court's decision in *Delaware Dept. of Natural Res. & Envt'l Control, et al. v. EPA*, 785 F. 3d 1 (DC Cir. 2015) (July 1, ~~2015~~2016).

Subpart KKKK Standards of Performance for Stationary Combustion Turbines. 40 CFR Part 60, Subpart KKKK (July 1, ~~2015~~2016).

(See Subpart GG for additional requirements for Stationary Gas Turbines)

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Subpart LLLL Standards of Performance for New Sewage Sludge Incineration Unit. 40 CFR Part 60, Subpart LLLL (July 1, ~~2015~~2016).

Subpart MMMM Emission Guidelines and Compliance Times for Existing Sewage Sludge Incineration Units. 40 CFR Part 60, Subpart MMMM (July 1, ~~2015~~2016).

Subpart OOOO Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution. 40 CFR Part 60, Subpart OOOO, (July 1, ~~2015~~2016)~~, as amended August 12, 2015 (*80 Fed. Reg. 48262*)~~.

APPENDIX A to Part 60 Test Methods. 40 CFR Part 60 (July 1, ~~2015~~2016).

APPENDIX B to Part 60 Performance Specifications. 40 CFR Part 60 (July 1, ~~2015~~2016), as amended July 7, ~~2015~~2016 (*80 FR 38628*).

APPENDIX C to Part 60 Determination of Emission Rate Change. 40 CFR Part 60 (July 1, ~~2015~~2016).

APPENDIX D to Part 60 Required Emission Inventory Information. 40 CFR Part 60 (July 1, ~~2015~~2016).

APPENDIX F to Part 60 Quality Assurance Procedures. 40 CFR Part 60 (July 1, ~~2015~~2016).

APPENDIX I to Part 60 Removable Label and Owner's Manual. 40 CFR Part 60 (July 1, ~~2015~~2016).

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DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

Air Quality Control Commission

REGULATION NUMBER 6

STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

5 CCR 1001-8

PART A

STATEMENTS OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE (For Part A)

XXIV. Adopted May 18, 2017

Background

This Statement of Basis, Specific Statutory Authority, and Purpose complies with the requirements of the Colorado Administrative Procedures Act, Section 24-4-103, C.R.S., the Colorado Air Pollution Prevention and Control Act, Sections 25-7-110 and 25-7-110.5, C.R.S., and the Air Quality Control Commission's ("Commission") Procedural Rules.

Basis

The U.S. Environmental Protection Agency ("EPA") promulgated amendments to 40 C.F.R. Part 60, Subparts Ec, Ja, CCCC, OOOO, and Appendixes A and B. Additionally, the D.C. Circuit Court of Appeals vacated EPA's 100-hour emergency demand response exemption contained in 40 C.F.R. Part 60, Subpart IIII in *Delaware Dept. of Natural Res. & Envt'l Control ("DNREC"), et al. v. EPA*, 785 F. 3d 1 (D.C. Cir. 2015). The State of Colorado is required under Section 111 of the Clean Air Act ("CAA") to adopt such New Source Performance Standards ("NSPS") into its regulations in order to maintain agency authority with regard to the standards.

Additionally, the EPA promulgated new and revised Emission Guidelines and Compliance Times contained in 40 C.F.R. Part 60, Subparts Ce and DDDD. Under Section 111(d) of the Clean Air Act, States must develop and submit to EPA a plan for implementing and enforcing the Emission Guidelines and Compliance Times for existing sources. The 111(d) plans are Colorado-specific plans proposed for EPA approval identifying how to implement the requirements for existing sources under 111(d) and are not themselves regulations or incorporated by reference as regulations.

Specific Statutory Authority

The Colorado Air Pollution Prevention and Control Act, Sections 25-7-105(1)(b) and 25-7-109, C.R.S. authorize the Commission to adopt emission control regulations, including emission control regulations relating to new stationary sources, for the development of an effective air quality control program. Further, Section 25-7-106(6) authorizes the Commission to require testing, monitoring, and recordkeeping.

Purpose

Adoption of the federal rules in 40 C.F.R. Part 60, Subparts Ec, Ja, CCCC, IIII, OOOO, and Appendixes A and B, makes these rules and revisions enforceable under Colorado law. Additionally, updating citation references of 40 C.F.R. Part 60, Subparts Ce, and DDDD along

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with approval of 111(d) plans for Hospital/Medical/Infectious Waste Incinerators ("HMIWI") and Commercial and Industrial Solid Waste Incineration (CISWI) Units allows the Division to implement and enforce the Emission Guidelines and Compliance Times for these source categories. The 111(d) plans for CISWI Units~~,~~ and HMIWI are consistent with and do not differ from the Model Rules contained in the Emission Guidelines and Compliance Times for these source categories. The Emission Guidelines and Compliance Times and associated 111(d) plans will not be enforceable until approved by the EPA. Until EPA approves these 111(d) plans, existing sources in these source categories would be subject to a federal plan promulgated by EPA, if applicable. The Commission does not intend for these 111(d) plans to apply retroactively. The schedule for sources to comply with the Emission Guidelines and Compliance Times varies depending on when a 111(d) plan or federal plan to take effect. For the CISWI 111(d) plan, affected sources would need to achieve final compliance as expeditiously as practicable after approval of the plan, but no later than the earlier date of February 7, 2018, or three years after the effective date of the approval of the plan. For the HMIWI 111(d) plan, affected sources would need to achieve final compliance no later than three years from EPA approval of the plan, but no later than October 6, 2014.

Adoption of the rules will not impose additional requirements upon sources beyond the minimum required by federal law and may benefit the regulated community by providing sources with up-to-date information.

Further, these revisions will correct any typographical, grammatical and formatting errors found within the regulation.

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

May 5, 2017

THE ADMINISTRATOR

Mr. Carroll W. McGuffey III
Mr. M. Buck Dixon
Counsel for Republic Services
Troutman Sanders LLP
600 Peachtree Street NE, Suite 5200
Atlanta, Georgia 30308

Mr. Barry Shanoff
Counsel for Solid Waste Association of North America
1100 Wayne Avenue, Suite 650
Silver Spring, Maryland 20910

Mr. Kevin J. Kraushaar
Counsel for National Waste & Recycling Association
4301 Connecticut Avenue, NW, #300
Washington, D.C. 20008

RECEIVED
MAY 10 2017

Ms. Carol F. McCabe
Mr. Michael Dillon
Counsel for Waste Management Inc. and
Waste Management Disposal Services of Pennsylvania
Manko, Gold, Katcher & Fox
401 City Avenue, Suite 901
Bala Cynwyd, Pennsylvania 19004

RE: Convening a Proceeding for Reconsideration of final rules entitled "Standards of Performance for Municipal Solid Waste Landfills," 81 Fed. Reg. 59332 and "Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills," 81 Fed. Reg. 59276, both published August 29, 2016.

Dear Mr. McGuffey, Mr. Dixon, Mr. Shanoff, Mr. Kraushaar, Ms. McCabe and Mr. Dillon:

This letter concerns a petition from National Waste & Recycling Association, Solid Waste Association of North America, Republic Services, Inc., Waste Management, Inc., and Waste Management Disposal Services of Pennsylvania, Inc., dated October 27, 2016, to the U.S. Environmental Protection Agency requesting reconsideration, and in some circumstances an administrative stay, of provisions included in the EPA's final rules entitled "Standards of Performance for Municipal Solid Waste Landfills," 81 Fed. Reg. 59332 (August 29, 2016) (i.e. the NSPS), and "Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills,"

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81 Fed. Reg. 59276 (August 29, 2016) (i.e. the emission guidelines), pursuant to section 307(d)(7)(B) of the Clean Air Act.

We find, under CAA section 307(d)(7)(B), that the petition has raised several objections to the provisions in both subpart XXX and subpart Cf that arose after the comment period or were impracticable to raise during the comment period and that are of central relevance to the outcome of the rule. Therefore, by this letter the EPA is convening a proceeding for reconsideration of the following topics: 1) tier 4 surface emission monitoring; 2) annual liquids reporting; 3) corrective action timeline procedures; 4) overlapping applicability with other rules; 5) the definition of cover penetration and 6) design plan approval. As part of the reconsideration process, the EPA expects to prepare a notice of proposed rulemaking that will provide an opportunity for notice and comment on the issues raised in the petition that meet the standard of CAA section 307(d)(7)(B), as well as any other matter we believe will benefit from additional comment.

As a result of this reconsideration, the EPA intends to exercise its authority under CAA section 307(d)(7)(B) to issue a 90-day stay of the effectiveness of both the NSPS (subpart XXX) and the emission guidelines (subpart Cf). The EPA believes it is appropriate to stay the effectiveness of both rules in their entirety because the topics listed above are integral to both rules. Sources need not comply with these requirements while the stay is in effect.

This letter does not address other requests for reconsideration raised in this and other petitions. Nor does it address the merits of, or suggest a concession of error on, any issue raised in the petition.

If you have any questions on this action, please contact Mr. Peter Tsirigotis in the Office of Air Quality Planning and Standards at (888) 627-7764 or airaction@epa.gov.

Respectfully yours,

E. Scott Pruitt

COLORADO
Air Quality Control Commission
Department of Public Health & Environment

Meeting Minutes

May 18, 2017

Location:	Colorado Department of Public Health & Environment 4300 Cherry Creek Drive South, Sabin Room Denver, CO 80246		
Members Present:	Peter Butler *(phone)* Jana Milford	John Clouse Curtis Rueter	Chuck Grobe *(phone)* Will Toor
Members Absent:	Tony Gerber	Laura Teague	
Commission Staff:	Mike Silverstein	Theresa Martin	
Division Staff:	Garry Kaufman Gordon Pierce	Chris Colclasure Dena Wojtach	Doug Decker Sean Hackett
Attorney General's Office:		Tom Roan	

CALL TO ORDER AND DETERMINATION OF A QUORUM
Chair Clouse called the meeting to order at 9:00 AM and determined that a quorum of Commissioners was present with six Commissioners.

PUBLIC COMMENT
Chair Clouse asked if there were any members of the public who wished to make a comment on any air pollution issue not on the agenda. There was none.

Chair Clouse removed from the Consent Agenda Regulation Number 6, Part A since comments were received from EPA on May 17 and the Division provided an Errata that would need to be reviewed and discussed.

CONSENT AGENDA

APPROVAL OF MINUTES
March 16, 2017 Meeting Minutes and April 20, 2017 Science Forum Summary
Review and approval of the March 16, 2017 meeting minutes and April 20, 2017 Science Forum summary of the Air Quality Control Commission.

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WRITTEN COMMENT ONLY RULEMAKING HEARING

Regulation Number 8, Parts A & E

To consider a proposal to revise Regulation Number 8, Parts A and E to incorporate by reference changes the EPA made to its National Emission Standards for Hazardous Air Pollutants rules.

REQUEST FOR RULEMAKING HEARINGS (AUGUST 17, 2017)

Regulation Number 11, Parts C, D & F

To set a hearing to consider proposed revisions to Regulation Number 11 to reflect procedural changes and criteria used in the emissions inspection of motor vehicle On-Board Diagnostics, to modify the on-road remote sensing clean screen low emitter index qualifying criteria, and to incorporate the use of on-board diagnostics test data collected from newer vehicles. Chair Clouse asked if there were any members of the public who wished to make a comment. No public comment on the consent agenda was offered.

Motion:	To adopt the Consent Agenda items without modification
Moved:	Commissioner Rueter
Second:	Commissioner Toor
Discussion:	none
Carried:	6-0

REGULAR AGENDA

WRITTEN COMMENT ONLY RULEMAKING HEARING

Regulation Number 6, Part A

Sean Hackett of the Division noted that the Division was made aware of a May 5, 2017 letter from the EPA Administrator committing to reconsider both EPA's Standards of Performance for Municipal Solid Waste Landfills (81FR59332, August 29, 2016) as well as EPA's Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills (81FR59276, August 29, 2016). Consequently, the Division is withdrawing all references to 40 CFR Part 60, Subparts XXX and Cf contained in the proposed regulatory rule language and statement of basis and purpose as well as the associated 111(d) State Plan. The remainder of the Division's proposed revisions to Regulation Number 6 were still to be considered for adoption by the Commission. An Errata was provided by the Division. Commissioner questions were addressed. Chair Clouse asked if there were any members of the public who wished to make a comment. No public comment was offered.

Motion:	To adopt Regulation Number 6, Part A including the Statement of Basis and Purpose as proposed by the Division, with modifications described in an Errata
Moved:	Commissioner Rueter
Second:	Commissioner Grobe
Discussion:	None
Carried:	6-0

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BRIEFINGS, DISCUSSIONS AND REPORTS

Front Range Ozone

Gordon Pierce of the Division and Ken Lloyd of the Regional Air Quality Council briefed the Commission on ozone concentrations, issues, outreach efforts, and emission reduction programs for the Front Range region. Commissioner questions were addressed. Pam Milmoe of Boulder County Public Health provided public comment.

Overview on Background Ozone

Tom Moore, Air Quality Program Manager from the Western States Air Resources Council, or "WESTAR", briefed the Commission on background ozone research and policy issues. Moore gave an overview of who WESTAR and WRAP are. Commissioner questions were addressed. No public comment was offered.

Oil and Gas Control Technique Guidelines

Chris Colclasure of the Division briefed the Commission on the process and timing for revising Regulation Number 7 to address EPA's oil and gas Control Techniques Guidelines. The Division also updated the Commission on its evaluation of EPA's New Source Performance Standards OOOOa and how these federal requirements might be implemented in Colorado. Commissioner questions were addressed. Andrew Casper, Director of Legal and Regulatory Affairs with Colorado Oil and Gas Association and Mike Paules, Associate Director with Colorado Petroleum Council which is a division of the American Petroleum Institute provided public comment.

Assessment of Potential Public Health Effects from Oil and Gas Operations in Colorado

Mike Van Dyke, Branch Chief of CDPHE's Disease Control and Environmental Epidemiology Division briefed the Commission of the recent CDPHE report "Assessment of Potential Public Health Effects from Oil and Gas Operations" in Colorado" as well as current and future CDPHE activities to address citizen concerns about oil and gas related exposures. Commissioner questions were addressed. Pam Milmoe of Boulder County Public Health provided public comment.

Major Source RACT

Dena Wojtach of the Division briefed the Commission on the process and timing for developing reasonably available control technology requirements for certain major sources in the Denver Metropolitan/North Front Range ozone nonattainment area. Commissioner questions were addressed. No public comment was offered.

Commissioner Informational Items

Commissioners were invited to discuss activities that they have participated in over the past month and any issues relevant to Commission business. There was none.

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Division Director's Report - Garry Kaufman

- Legislation session is complete and there were no bills of consequence.
- Firestone house explosion incident has caused the Division to reassess its inspector safety procedures.
- Kaufman discussed recent interactions with EPA regarding regulation reviews and assessments, and EPA/State relations.

Attorney General's Report – Tom Roan

- Roan mentioned that his office is tracking ongoing federal litigation and had no updates to provide.

Administrator's Report - Mike Silverstein

- Earlier in the meeting, Silverstein presented letters of appreciation to those that worked to stage the April Commission's science forum.
- Silverstein reviewed the June Retreat agenda and site visits.
- No action items were noted from today's meeting.
- A decision on whether to hold a July meeting of the Commission will be made at the June retreat.

Adjourn at 1:32 p.m.

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To: Dressler, Jason[Dressler.Jason@epa.gov]; Anderson, Seneca[Anderson.Seneca@epa.gov]; Arias, Megan[arias.megan@epa.gov]; Bloeth, Mark[Bloeth.Mark@epa.gov]; Carpenter, Jacob[Carpenter.Jacob@epa.gov]; Goff, Keith[Goff.Keith@epa.gov]; Griffith, Carrie[griffith.carrie@epa.gov]; McNeal, Dave[Mcneal.Dave@epa.gov]; Page, Lee[Page.Lee@epa.gov]
From: Mitchell, Ken
Sent: Thur 6/1/2017 9:17:02 PM
Subject: Draft Stationary Source Team Presentation for Next Week's SESARM Meeting
FY17 Spring SESARM-Mitchell-053117-KM.pptx

All…

Attached is a draft of the presentation that Jason and Lee will present next week at the SESARM A ir Director's meeting. The focus of the presentation is State Plans under section 111(d), landfills, and air toxics updates. Please take a look and let me know if you have any edits by tomorrow COB if possible (I feel like I've left something out). Thanks!

Kenneth L. Mitchell, Ph.D. | Special Assistant to the Director |
Air, Pesticides, and Toxics Management Division
U.S. Environmental Protection Agency | 61 Forsyth Street, SW | Atlanta, GA 30303
Voice: 404-562-9065 | Fax: 404-562-9066 | Email: mitchell.ken@epa.gov

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United States
Environmental Protection
Agency

CAA Air Toxics and §129 Combustion Program Update

Spring Air Directors' Meeting

Atlanta, GA

6/8/17

Lee Page and Jason Dressler
U.S. Environmental Protection Agency
Atlanta, GA

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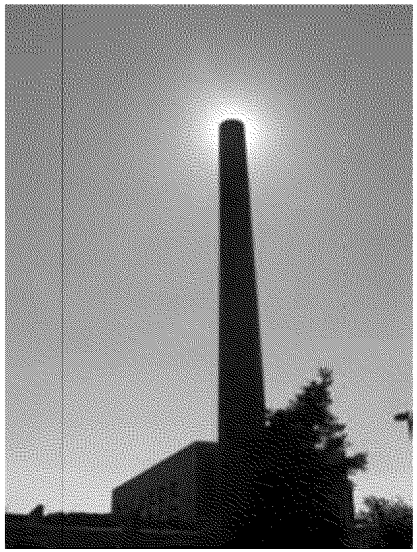
APTMD Stationary Source Team

Team Focus

- Program Implementation of CAA §§111, 112, and 129



Team Organization

- Located in the Air Enforcement and Toxics Branch (AETB)

- Team Management
  - Beverly Spagg, Branch Chief
  - Todd Russo and Dick DuBose, Section Chiefs

- Team Staff
  - Ken Mitchell, Stationary Source Team Lead
  - David McNeal – **Landfills** (new and existing), Acid Rain, Monitoring and Testing
  - Keith Goff, Carrie Griffith, Megan Arias - **§111** (NSPS, New and Existing Sources)
  - Lee Page, Jake Carpenter, Seneca Anderson - **§112** (NESHAPs/MACT)
  - Mark Bloeth, Jason Dressler, Carrie Griffith, Megan Arias - **§129** (Combustion Standards; new and existing)

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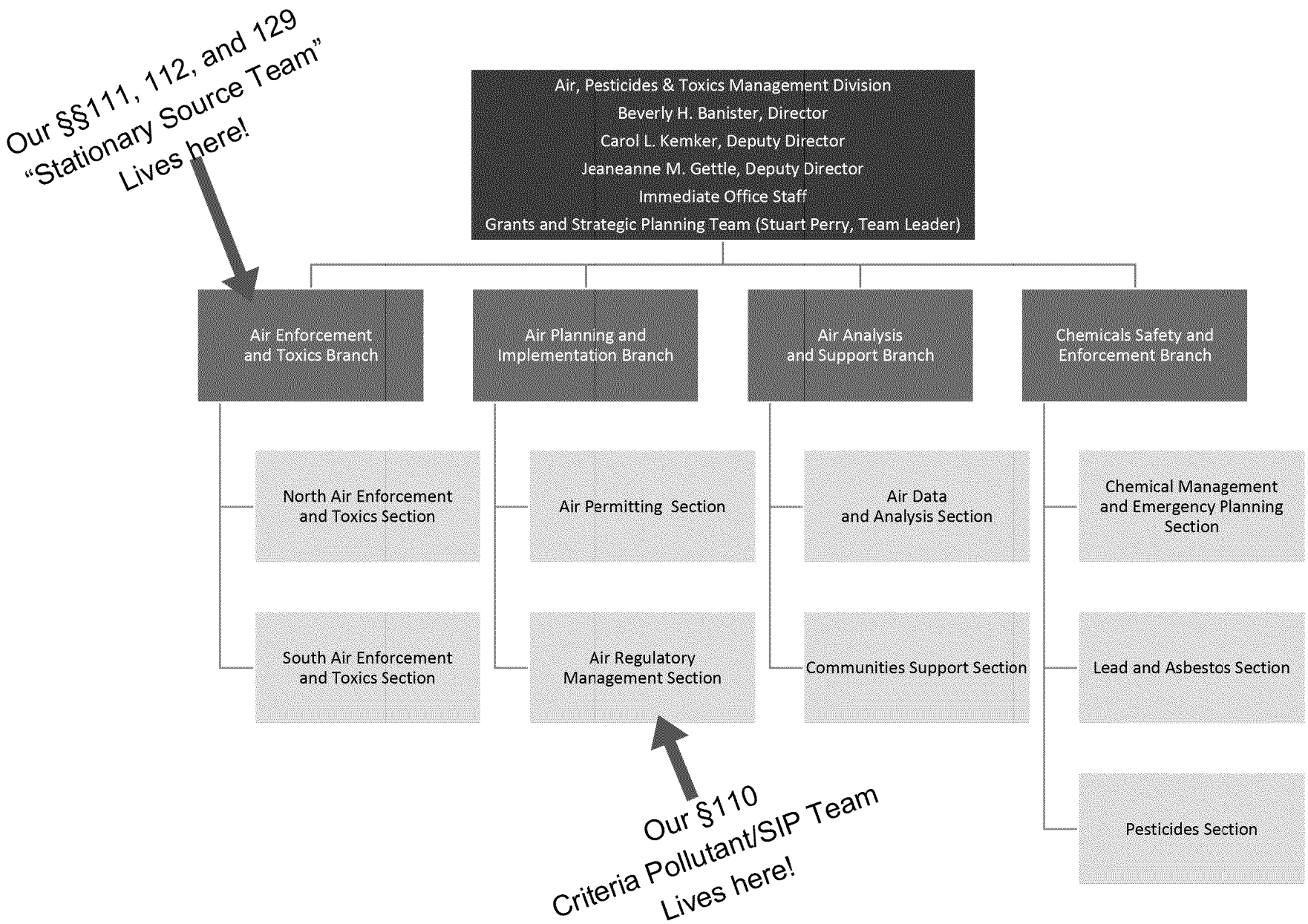
Air, Pesticides and Toxics Management Division



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Where do I send §§ 111, 112, and 129 Information?

- If possible, please do **not** bundle §§111, 112, and 129 submittals with criteria pollutant SIP submittals

- If possible, please **do** send §§111, 112, and 129 information separately to the attention of:

Beverly Spagg, Chief
Air Enforcement and Toxics Branch
U.S. EPA Region 4
61 Forsyth Street, SW
Atlanta, GA 30303

§129/111(d) State Plans*

For each Emission Guideline
the State Submits One Comprehensive State Plan for the Entire State

- **§60.24 Emission standards and compliance schedules**

  (b)(3) Emission standards shall apply to all designated facilities within the State. A plan may contain emission standards adopted by local jurisdictions provided that the standards are enforceable by the State.

- **§60.26 Legal authority**

  (d) A State governmental agency other than the State air pollution control agency may be assigned responsibility for carrying out a portion of a plan if the plan demonstrates to the Administrator's satisfaction that the State governmental agency has the legal authority necessary to carry out that portion of the plan.

  (e) The State may authorize a local agency to carry out a plan, or portion thereof, within the local agency's jurisdiction if the plan demonstrates to the Administrator's satisfaction that the local agency has the legal authority necessary to implement the plan or portion thereof, and that the authorization does not relieve the State of responsibility under the Act for carrying out the plan or portion thereof.

*Also applies to non-combustion 111(d) State Plans (e.g., Landfills)

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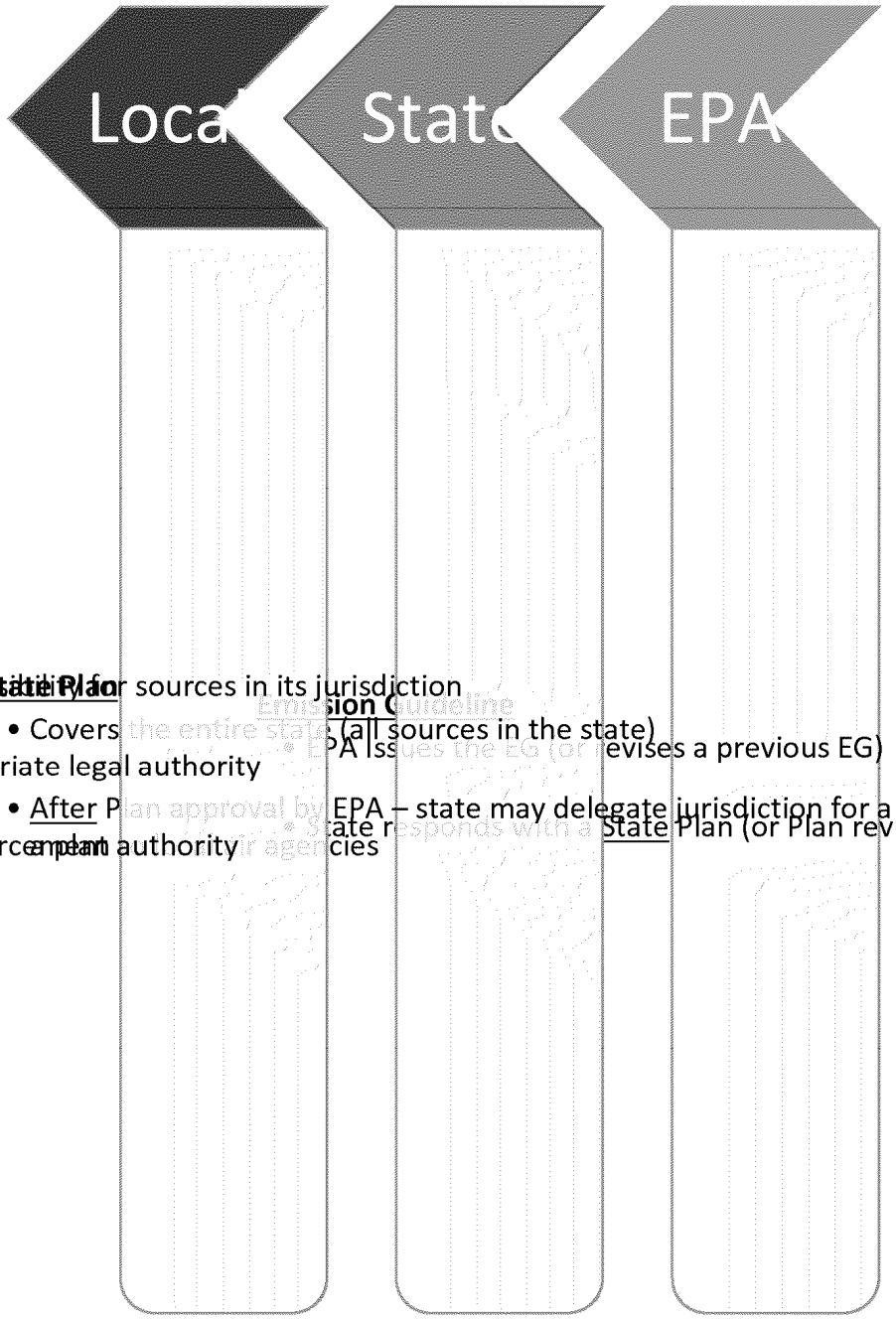
State Plan Submittal vs Federal Plan Delegation

State Plan Approach



State Plan

- Covers the entire state (all sources in the state)
- After Plan approval by EPA – state may delegate jurisdiction for a portion of a plan

taken responsibility for sources in its jurisdiction

have appropriate legal authority

retains enforcement authority

Emission Guideline

- EPA issues the EG (or revises a previous EG)
- State responds with a State Plan (or Plan revision) for review and approval
- Other agencies

State Plan Submittal vs Federal Plan Delegation

Federal Plan Delegation Approach

EPA
Issues Federal Plan

State can request delegation of the FP for all or a portion of the State

EPA
Issues Federal Plan

Local can request delegation of the FP for its jurisdiction

Unlike the "State Plan" approach, a local can request delegation of the Federal Plan directly from EPA.

(See discussion in the final Sewage Sludge Incineration Federal Plan; 81 FR 26059, 4/29/16)

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Landfill NSPS and Emission Guideline

- In a May 5, 2017 letter, EPA informed petitioners that it intends to reconsider certain aspects of the 2016 NSPS for the municipal solid waste landfills

- On May 31, 2017, the agency published a 90-day stay (until August 29, 2017) of the effectiveness of both the NSPS (subpart XXX) and the emission guidelines (subpart Cf)

https://www.epa.gov/stationary-sources-air-pollution/municipal-solid-waste-landfills-new-source-performance-standards#compliance

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Air Planning Agreement

- Prepare and submit CAA sections 111(d) and 129 state plans and letters of certification in accordance with regulatory timeframes.

- In addition, collect and submit reports on progress of sections 111(d) and 129 plans annually, pursuant to 40 CFR 60.25(e) and (f).

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Air Toxics Topics

- **NESHAP Updates**
- **n-Propyl Bromide**
- **Risk and Technology Reviews**
- **Boiler MACT**

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Part 63 (MACT) Rule Updates

- **Mercury and Air Toxics Standard (MATS)**
  - Promulgated on Feb. 16, 2012 – Compliance date April 16, 2015
  - Technical corrections amendment published on April 6, 2016
  - Rule amendment published on April 6, 2017
    - Allows electronic reporting in PDF format
  - Court grants indefinite delay to May 18th oral arguments on:
    - Cost assessment and denial of petitions to reconsider certain aspects
    - EPA to file status updates every 90 days

- **Ferroalloys Production**
  - Promulgated on May 20, 1999 – RTR on June 30, 2015
  - Published amendments on January 18, 2017
    - Addresses reconsideration issues from July 12, 2016

- **Publicly Owned Treatment Works**
  - Promulgated on Oct. 26, 1999 - RTR proposed on Dec. 8, 2016
  - Extended comment period for proposed RTR until 3/29/17
    - Published on February 22, 2017

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Part 63 (MACT) Rule Updates

- **Brick and Clay MACT – Promulgated October 26, 2015**
  - Litigation followed promulgation
  - House Bills introduced to delay implementation until after legal action completed
- **Once-In-Always-In**
- **Military MACT**
- **Rules with Electronic Data Reporting Requirements**
  - **Part 63: 39 Part 60: 14**
- **Questions on MACT Rules**
  - Start with your Permitting Authority
  - Regional EPA contact
  - No longer a HQ contact list on EPA website
    - Go to relevant standard in website and Submit under "Contact Us'

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Air Toxics – A New HAP?

- Section 112(b)(3) of the CAA provides authority to add or delete Hazardous Air Pollutants (HAPs)
- EPA was petitioned to add n-propyl bromide (n-PB) as a HAP by the Halogenated Solvents Industry Alliance and New York State Department of Environmental Conservation
- EPA proposed to grant the petition on January 9, 2017
- EPA has extended the comment period until June 8, 2017
- Final notice expected sometime next year
- What happens If granted?
  - Identification of major and area source categories
  - Regulations pursuant to Section 112 (d) of the CAA

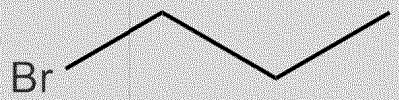
n-Propyl Bromide

n-PB is a brominated organic liquid used as an intermediate chemical in the manufacture of pharmaceuticals and agricultural products, as well as a carrier solvent

Specific applications of n-PB include:

- in aerosol solvents, adhesives, dry cleaning
- open vapor degreasing of electronic, metal and precision cleaning operations

n-PB is reasonably anticipated to cause cancer in humans and can cause non-cancer effects (e.g., reproductive toxicity and neurotoxicity)



https://www.epa.gov/haps/petitions-add-npb-list-hazardous-air-pollutants

Risk and Technology Reviews (RTRs)

Statutory Requirements

Risk: Section 112(f) of the CAA

- Review remaining risk 8 years after MACT is applied
- Major source categories only
- Revise rule as necessary

Technology: Section 112(d) of the CAA

- Review technology used for MACT <u>every</u> 8 years
- Revise rule as necessary

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RTR Litigation

- **Case 16-cv-01074; filed June 8, 2016 – 9 source categories**
  - Primary Copper Smelting; Subpart QQQ (2002)
  - Generic MACT – Carbon Black Production; Subpart YY (2002)
  - Generic MACT – Cyanide Chemicals Manufacturing; Subpart YY (2002)
  - Generic MACT – Spandex Production; Subpart YY (2002)
  - Flexible Polyurethane Foam Fabrication; Subpart MMMMM (2003)
  - Refractory Products Manufacturing; Subpart SSSSS (2003)
  - Semiconductor Manufacturing; Subpart BBBBB (2003)
  - Primary Magnesium Refining; Subpart TTTTT (2003)
  - Mercury Cell Chlor-Alkali Plants; Subpart IIIII (2003)
- **EPA to propose rulemaking schedule in early June**
- **Ongoing source identification for each category**

https://www3.epa.gov/ttn/atw/rrisk/rtrpg.html

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RTR Litigation (cont.)

Case 15-cv-512 (TSC); March 13, 2017 – 20 source categories

- Solvent Extraction
- Boat Manufacturing
- Surface Coating of Metal Coil
- Cellulose Products Manufacturing
- Ethylene Production
- Paper and Other Web Coating
- Municipal Solid Waste Landfills
- Hydrochloric Acid Production
- Reinforced Plastic Composites
- Asphalt Processing & Roofing Materials

* Integrated Iron & Steel
* Engine Test Cells
* Site Remediation
* Misc. Organic Chemicals
* Coating of Metal Cans
* Coating of Misc. Metal parts
* Organic Liquids Distribution
* Stationary Combustion Turbines
* Coating of Plastic Parts
* Coating of Autos and Trucks

EPA ordered to complete rulemaking within 3 years

No order of rulemaking stipulated

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RTR Litigation (Cont.)

Case 16-cv-00364 (CRC); March 22, 2017 - 13 Source Categories

- Leather Finishing
- Wet Formed Fiberglass Matt
- Rubber Tire Mfg.
- Coating of large Appliances
- Friction Materials Mfg.
- Coating of Metal Furniture
- Coating of Wood Building Products

* Printing, Coating, Dying of Fabrics
* Taconite Iron Ore Processing
* Miscellaneous Coatings
* Lime Manufacturing
* Iron and Steel Foundries
* Plywood and Composite Wood Prod.

7 categories must be completed by December 31, 2018

6 categories must be completed by June 20, 2020

EPA will determine which standards to address first

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Boiler MACT, Subpart DDDDD

- **Final rule promulgated in March 2011, amended in January 2013**
- **Rule amendments again on November 2015**
- **Compliance date - January 31, 2016**
- **Based on US Sugar petition, DC Court vacates portion of rule - July 29, 2016**
  - Court did not specify which subcategories to vacate
  - EPA petitioned for re-hearing - remand without vacatur
  - Court grants EPA's petition in December 2016
  - Rule remains in effect
- **Industry recently asks Supreme Court to take up EPA malfunction limits**
  - Court ruling in 2008 concluded that CAA requires continuous emission standards

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Questions?

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To: Mitchell, Ken[Mitchell.Ken@epa.gov]
Cc: Bloeth, Mark[Bloeth.Mark@epa.gov]; McNeal, Dave[Mcneal.Dave@epa.gov]; Wall, Mary Peyton[wallmp@dhec.sc.gov]; Brown, Robbie[brownrj@dhec.sc.gov]
From: Bell, Caitlan L.
Sent: Thur 3/2/2017 7:09:54 PM
Subject: Section 111(d) Implementation Plan for SC MSW Landfills
MSW 129 Plan Delay Letter.pdf
NPR draft 2016EOY 20170301.docx

Ken,

I have attached a letter detailing South Carolina's plan to submit our Section 111(d) Plan for Municipal Solid Waste Landfills once we have adopted last year's Federal Regulations by reference. I have also attached the draft Notice of Proposed Regulation that includes 40 CFR Part 60, Subparts XXX and Cf. Let me know if you have any questions.

Thank you,

Caitlan Bell
Environmental Health Manager II
S.C. Dept. of Health & Environmental Control
Office: (803) 898-0561
Connect: www.scdhec.gov Facebook Twitter

dhec
Healthy People. Healthy Communities.

March 2, 2017

Mr. Kenneth Mitchell
Air, Pesticides, & Toxics Management Division
U.S. EPA, Region 4
Sam Nunn Federal Center
61 Forsyth Street, SW
Atlanta, GA 30303

Re: South Carolina Designated Facility Plan (Section 111(d) Plan) for Municipal Solid Waste Landfills

Dear Mr. Mitchell:

As you are aware, the final rules for municipal solid waste (MSW) landfills were published in the *Federal Register* on August 29, 2016, under 40 CFR Part 60, Subpart XXX (81 FR 59331) and Subpart Cf (81 FR 59275). States with existing MSW Landfills must implement the emission guidelines promulgated by the Environmental Protection Agency (EPA) in Subpart Cf. States are required to develop a State Plan under Section 111(d) of the Clean Air Act (CAA) as part of this implementation effort and submit their state plan to the EPA within nine months of the adoption of the emission guidelines. These State Plans are required to be submitted to the EPA for approval by May 30, 2017.

On March 27, 2011, the EPA published a Federal Register notice (66 FR 16606) granting South Carolina adopt-by-reference NSPS delegation. Emission guidelines at 40 CFR Part 60 are formally adopted into our state regulations as part of an annual South Carolina Department of Health and Environmental Control (Department) procedure referred to as the End-of-Year (EOY) revisions. These EOY revisions incorporate by reference federal amendments published from January 1 through December 31 for the preceding calendar year.

As explained to us by Region 4 staff in previous 111/129 plans, in order to have our 111(d) plan approved, we must have in regulation the emission guidelines at 40 CFR Part 60, Subpart Cf. However, these emission guidelines will not be adopted in our

regulations until mid-to-late 2017. To account for this delay, the Department proposes the following process:

- We will incorporate by reference the emission guidelines in 40 CFR Part 60, Subpart Cf as part of our 2016 EOY revisions, which will be completed in the fall of 2017.
- The public hearing that will take place, as part of the formal procedures to promulgate the 2016 EOY revisions, will act as the required public notice for the 111(d) plan for MSW Landfills.
- Approval of the State Plan will be based only on the regulations that incorporated the federal emission guidelines, thereby alleviating the need to include detailed permit conditions for affected sources. The mechanism for plan approval is to ensure that our state regulations are as stringent as the federal rule.

Finally, we appreciate the flexibility given to us under the circumstances and will make every effort to complete the regulatory process and submission of the required Section 111(d) Plan for MSW landfills as quickly as possible. If you have any questions regarding this letter, please contact Caitlan Bell by telephone at (803) 898-0561 or email at bellcl@dhec.sc.gov, or me by telephone at (803) 898-4064 or email at wallmp@dhec.sc.gov.

Sincerely,

Mary Peyton Wall, Manager
Regulation and SIP Management Section
Bureau of Air Quality

cc: David McNeal, US EPA Region 4
Mark Bloeth, US EPA Region 4
Robert J. Brown, Director, Division of Air Assessment & Regulation, BAQ, SC DHEC

(x) ACTION/DECISION
( ) INFORMATION

Date: *May 11, 2017*

To: Board of the S.C. Department of Health and Environmental Control

From: S.C. Department of Health and Environmental Control, Bureau of Air Quality

Re: Notice of Proposed Regulation amending R.61-62, *Air Pollution Control Regulations and Standards*.

I. Introduction

The Bureau of Air Quality proposes the attached Notice of Proposed Regulation to amend R.61-62, *Air Pollution Control Regulations and Standards*, and the South Carolina Air Quality Implementation Plan ("SIP") for publication in the May 26, 2017 State Register. Legal authority for this amendment resides in the South Carolina Pollution Control Act, 1976 Code Section 48-1-10 et seq. ("Pollution Control Act"), which, among other things, authorizes the Department to adopt emission control regulations, standards, and limitations, and take all actions necessary or appropriate to secure to the State the benefits of federal air pollution control laws. In accordance with S.C. Code Section 1-23-120(H), General Assembly review is not required because the Department proposes promulgating the amendments to maintain compliance with federal law.

II. Facts

1. Pursuant to the Pollution Control Act, along with the federal Clean Air Act ("CAA"), 42 U.S.C. Sections 7410, 7413, and 7416, the Department must ensure national primary and secondary ambient air quality standards are achieved and maintained in South Carolina. No state may adopt or enforce an emission standard or limitation less stringent than these federal standards or limitations pursuant to 42 U.S.C. Section 7416.

2. The United States Environmental Protection Agency ("EPA") promulgates amendments to the Code of Federal Regulations ("CFR") throughout each calendar year. Recent federal amendments to 40 CFR Parts 50, 51, 52, 60, 61, 63 and 70 include clarification, guidance and technical amendments regarding state implementation plan ("SIP") requirements promulgated pursuant to 42 U.S.C. Sections 7410 & 7413, New Source Performance Standards ("NSPS") mandated by 42 U.S.C. Section 7411, federal National Emission Standards for Hazardous Air Pollutants ("NESHAP") for Source Categories mandated by 42 U.S.C Section 7412, and Prevention of Significant Deterioration ("PSD") and Title V Operating Program provisions promulgated under title I and title V of the CAA.

3. The Department proposes to amend Regulation 61-62.1, *Definitions and General Requirements*; Regulation 61-62.5, Standard No. 7, *Prevention of Significant Deterioration*; Regulation 61-62.60, *South Carolina Designated Facility Plan and New Source Performance Standards*; Regulation 61-62.61, *National Emission Standards for Hazardous Air Pollutants*; Regulation 61-62.63, *National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Categories*; Regulation 61-62.70, *Title V Operating Permit Program*; and the SIP, to adopt the federal amendments to these standards promulgated from January 1, 2016, through December 31, 2016.

4. The Department also proposes to add Regulation 61-62.97, *Cross-State Air Pollution Rule (CSAPR)*

Trading Program, to incorporate the EPA's CSAPR trading program for South Carolina in 40 CFR Part 97 for NO_X (Annual) and SO_2 (Annual), as published in the *Federal Register* on August 8, 2011 (76 FR 48208), June 12, 2012 (77 FR 34830), and subsequently amended on December 3, 2014 (79 FR 71663), and October 26, 2016 (81 FR 74504). This regulation will address mandatory transport and regional haze SIP infrastructure elements pursuant to 42 U.S.C. Sections 7410 and 7491.

5. The Department is also proposing other changes to Regulation 61-62 that include corrections for internal consistency, clarification, reference, punctuation, codification, formatting, and spelling to improve the overall text of Regulation 61-62 as necessary.

6. South Carolina industries are already subject to these national air quality standards as a matter of federal law. Thus, there will be no increased cost to the State or its political subdivisions resulting from codification of these amendments to federal law. The state of South Carolina is already reaping the environmental benefits of these amendments.

7. In accordance with 1976 Code Section 1-23-120(H), legislative review is not required because the Department proposes promulgating the amendments to maintain compliance with federal law. As such, neither a preliminary assessment report nor a preliminary fiscal impact statement is required.

8. A Notice of Drafting was published in the *State Register* on January 27, 2017, to initiate the statutory process to amend Regulation 61-62. Notice was also published on the Department's Regulatory Information website in the *DHEC Regulation Development Update*. The Notice of Drafting was also sent via Department list serve to interested stakeholders on January 27, 2017. A copy of the Notice of Drafting is submitted as Attachment B. The public comment period ended on February 27, 2017.

9. The proposed regulation has been internally reviewed by all appropriate staff.

10. Department staff is requesting the Board's initial approval to publish a Notice of Proposed Regulation in the *State Register* to provide opportunity for public comment. If approved, the Department will publish a notice in the *State Register* on May 26, 2017, and schedule a public hearing before the Board on August 10, 2017.

III. Request for Approval

Department staff respectfully requests the Board to grant approval of the attached Notice of Proposed Regulation for publication in the May 26, 2017 *State Register*, to provide opportunity for public comment, consider comments, and allow staff to proceed with a public hearing before the Board.

Rhonda B. Thompson, P.E.	Myra C. Reece
Bureau Chief	Director
Bureau of Air Quality	Environmental Affairs

Attachments:

A. Notice of Proposed Regulation
B. Notice of Drafting published in the January 27, 2017 *State Register*

ATTACHMENT A

STATE REGISTER NOTICE OF PROPOSED REGULATION
FOR REGULATION 61-62, *Air Pollution Control Regulations and Standards*

May 26, 2017

Document No. _____

DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

CHAPTER 61

Statutory Authority: 1976 Code Section 48-1-10 et seq.

Regulation 61-62, *Air Pollution Control Regulations and Standards*

Preamble:

1. Pursuant to the South Carolina Pollution Control Act, 1976 Code Section 48-1-10 et seq., along with the federal Clean Air Act, 42 U.S.C. Sections 7410, 7413, and 7416, the Department must ensure national primary and secondary ambient air quality standards are achieved and maintained in South Carolina. No state may adopt or enforce an emission standard or limitation less stringent than these federal standards or limitations pursuant to 42 U.S.C. Section 7416.

2. The United States Environmental Protection Agency ("EPA") promulgates amendments to the Code of Federal Regulations ("CFR") throughout each calendar year. Recent federal amendments to 40 CFR Parts 50, 51, 52, 60, 61, 63 and 70 include clarification, guidance and technical amendments regarding state implementation plan ("SIP") requirements promulgated pursuant to 42 U.S.C. Sections 7410 & 7413, New Source Performance Standards ("NSPS") mandated by 42 U.S.C. Section 7411, federal National Emission Standards for Hazardous Air Pollutants ("NESHAP") for Source Categories mandated by 42 U.S.C Section 7412, and Prevention of Significant Deterioration ("PSD") and Title V Operating Program provisions promulgated under title I and title V of the CAA.

3. The Department proposes to amend Regulation 61-62.1, *Definitions and General Requirements*; Regulation 61-62.5, Standard No. 7, *Prevention of Significant Deterioration*; Regulation 61-62.60, *South Carolina Designated Facility Plan and New Source Performance Standards*; Regulation 61-62.61, *National Emission Standards for Hazardous Air Pollutants*; Regulation 61-62.63, *National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Categories*; Regulation 61-62.70, *Title V Operating Permit Program*; and the South Carolina SIP, to adopt the federal amendments to these standards promulgated from January 1, 2016, through December 31, 2016.

4. The Department also proposes to add Regulation 61-62.97, *Cross-State Air Pollution Rule (CSAPR) Trading Program*, to incorporate the EPA's CSAPR trading program for South Carolina in 40 CFR Part 97 for NO_X (Annual) and SO_2 (Annual), as published in the *Federal Register* on August 8, 2011 (76 FR 48208), June 12, 2012 (77 FR 34830), and subsequently amended on December 3, 2014 (79 FR 71663), and October 26, 2016 (81 FR 74504). This regulation will address mandatory transport and regional haze SIP infrastructure elements pursuant to 42 U.S.C. Sections 7410 and 7491.

5. The Department is also proposing other changes to Regulation 61-62 that include corrections for

internal consistency, clarification, reference, punctuation, codification, formatting, and spelling to improve the overall text of Regulation 61-62 as necessary.

6. South Carolina industries are already subject to these national air quality standards as a matter of federal law. Thus, there will be no increased cost to the State or its political subdivisions resulting from codification of these amendments to federal law. The state of South Carolina is already reaping the environmental benefits of these amendments.

7. In accordance with 1976 Code Section 1-23-120(H), legislative review is not required because the Department proposes promulgating the amendments to maintain compliance with federal law. As such, neither a preliminary assessment report nor a preliminary fiscal impact statement is required.

8. A Notice of Drafting was published in the *State Register* on January 27, 2017, to initiate the statutory process to amend Regulation 61-62. Notice was also published on the Department's Regulatory Information website in the *DHEC Regulation Development Update*. The Notice of Drafting was also sent via Department list serve to interested stakeholders on January 27, 2017.

Section-by-Section Discussion of Proposed Amendments:

SECTION CITATION/EXPLANATION OF CHANGE:

Regulation 61-62.1, Definitions and General Requirements

Regulation 61-62.1, Section I, Definitions:
Definition 100.c. is stricken in its entirety to address the revision to the regulatory definition of volatile organic compounds (VOCs) at 81 FR9339, February 25, 2016.

Regulation 61-62.5, Standard No. 5.2, Control of Oxides of Nitrogen (NO_X)

Regulation 61-62.5, Standard No. 5.2, Section III, Table 1:
Table 1 is amended at Pulverized Coal-Fired Boilers to remove the bold font from the phrase "Selective Catalytic Reduction" for appropriate codification and consistency.

Regulation 61-62.5, Standard No. 5.2, Section III, Table 1:
Table 1 is amended at Internal Combustion Engines to remove the italics font from the phrases "Timing Retard $\leq$ 4 degrees", "Turbocharger with Intercooler", "490 ppmv", "15", and "O_2" for appropriate codification and consistency.

Regulation 61-62.5, Standard No. 5.2, Section III:
Section III, Title, is amended to add the word, "Affected" to read, "Standard Requirements for New Affected Sources" for accuracy and clarity.

Regulation 61-62.5, Standard No. 5.2, Section III:
Paragraph A. is amended to add the word, "controls" to read, "above shall apply NO_X controls" for appropriate codification and accuracy.

Regulation 61-62.5, Standard No. 5.2, Section IV, Monitoring, Record Keeping, and Reporting Requirements for New Affected Sources:
Paragraph A(2)(a) is amended to strike the word "or" from the phrase, "greater or permitted for solid fuels" for clarity and accuracy.

Regulation 61-62.5, Standard No. 5.2, Section IV, Monitoring, Record Keeping, and Reporting Requirements for New Affected Sources:
Paragraph B(5) is amended to strike the word "of" and replace with the word "or" in the phrase "owner of operator," to read "owner or operator" for clarity and correctness.

Regulation 61-62.5, Standard No. 7, Prevention of Significant Deterioration

Regulation 61-62.5, Standard No. 7, Section (b), Definitions:
Paragraph (b)(34)(vi)(b) is amended to add the word "and" following the semi-colon, and Paragraph (b)(34)(vi)(c) is amended to strike the semi-colon and the word "and" following the semi-colon, and replace with a period, for correct codification.

Regulation 61-62.5, Standard No. 7, Section (q), Public Participation:
Paragraphs (q)(2)(ii), (iii), (vi), and (viii) are amended to address federal revisions to public notice provisions for Clean Air Act permitting programs at 81 FR 71613, October 18, 2016.

Regulation 61-62.5, Standard No. 7, Section (v), Innovative control technology:
Paragraphs (v)(4)(i), (ii) and (iii) are amended to (v)(3)(i)(ii) and (iii) to correct codification.

Regulation 61-62.5, Standard No. 7, Section (w), Permit Rescission:
Paragraph (w) is amended to change "(w)" to bold font for consistency in codification.

Regulation 61-62.5, Standard No. 7, Section (w), Permit Rescission:
Paragraphs (w)(1), (2), and (3) are amended to address federal revisions concerning rescission of preconstruction permits issued under the Clean Air Act at 81 FR 78043, November 7, 2016.

Regulation 61-62.5, Standard No. 7, Section (w), Permit Rescission:
Paragraph (w)(4) is amended to address federal revisions to public notice provisions in Clean Air Act Permitting Programs at 81 FR 71613, October 18, 2016.

Regulation 61-62.5, Standard No. 7, Section (aa), Actuals PALs:
Paragraph (aa) is amended to change "(aa)" to bold font for consistency in codification, and amended to strike the citation "(15)" and replace with "(aa)(15)" for correct codification.

Regulation 61-62.5, Standard No. 7, Section (aa), Actuals PALs:
Paragraph (aa)(1)(i) is amended to remove the underline from the citation "(aa)(15)" for consistency and appropriate codification.

Regulation 61-62.5, Standard No. 7, Section (aa), Actuals PALs:
Paragraph (aa)(9) is amended to strike the citation "(aa)(9)(i)(v)" and replace with "(aa)(9)(v)" for correct codification.

Regulation 61-62.5, Standard No. 7, Section (aa), Actuals PALs:
Paragraph (aa)(11)(i) is amended to strike the citation "(aa)(10)(iv)(d)" and replace with "(aa)(11)(i)(d)" for correct codification.

Regulation 61-62.5, Standard No. 7, Section (aa), Actuals PALs:
Paragraph (aa)(14)(i) is amended to add a close parenthesis to the citation "(aa)(14(i)(g)" to read, "(aa)(14)(i)(g)" for correct codification.

Regulation 61-62.5, Standard No. 7, Section (bb):
Paragraph (bb) is amended to change "(bb)" to bold font for consistency in codification.

Regulation 61-62.60, South Carolina Designated Facility Plan and New Source Performance Standards

Regulation 61-62.60, Subpart A, "General Provisions":
Subpart A, Table, is amended to incorporate federal revisions at 81 FR 35824, June 3, 2016; 81 FR 42542, June 30, 2016; 81 FR 59276 and 59332, August 29, 2016; and 81 FR 59800, August 30, 2016 by reference.

Regulation 61-62.60, Subpart Cf, "Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills":
Subpart Cf, Table, is added to incorporate newly promulgated federal regulations at 81 FR 59276, August 29, 2016 by reference.

Regulation 61-62.60, Subpart Da, "Standards of Performance for Electric Utility Steam Generating Units for Which Construction Is Commenced After September 18, 1978":
Subpart Da, Table, is amended to incorporate federal revisions at 81 FR 20172, April 6, 2016 by reference.

Regulation 61-62.60, Subpart Ja, "Standards of Performance for Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007":
Subpart Ja, Table, is amended to incorporate federal revisions at 81 FR 45232, July 13, 2016 by reference.

Regulation 61-62.60, Subpart GG, "Standards of Performance for Stationary Gas Turbines":
Subpart GG, Table, is amended to incorporate federal revisions at 81 FR 42542, June 30, 2016 by reference.

Regulation 61-62.60, Subpart BBB, "Standards of Performance for the Rubber Tire Manufacturing Industry":
Subpart BBB, Table, is amended to incorporate federal revisions at 81 FR 42542, June 30, 2016; and 81 FR 43950, July 6, 2016 by reference.

Regulation 61-62.60, Subpart DDD, "Standards of Performance for Volatile Organic Compound (VOC) Emissions from the Polymer Manufacturing Industry":
Subpart DDD, Table, is amended to incorporate federal revisions at 81 FR 42542, June 30, 2016 by reference.

Regulation 61-62.60, Subpart III, "Standards of Performance for Volatile Organic Compound (VOC) Emissions from the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes":
Subpart III, Table, is amended to incorporate federal revisions at 81 FR 42542, June 30, 2016; and 81 FR 43950, July 6, 2016 by reference.

Regulation 61-62.60, Subpart LLL:
Subpart LLL is retitled "Standards of Performance for SO_2 Emissions from Onshore Natural Gas Processing for Which Construction, Reconstruction, or Modification Commenced After January 20, 1984,

and on or Before August 23, 2011" for consistency with federal regulations, and Subpart LLL, Table, is amended to incorporate federal revisions at 81 FR 42542, June 30, 2016, and 81 FR 43950, July 6, 2016 by reference.

Regulation 61-62.60, Subpart NNN, "Standards of Performance for Volatile Organic Compounds (VOC) Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations":
Subpart NNN, Table, is amended to incorporate federal revisions at 81 FR 42542, June 30, 2016; and 81 FR 43950, July 6, 2016 by reference.

Regulation 61-62.60, Subpart XXX, "Standards of Performance for Municipal Solid Waste Landfills that Commenced Construction, Reconstruction, or Modification After July 17, 2014":
Subpart XXX, Table, is added to incorporate newly promulgated federal regulations at 81 FR 59332, August 29, 2016 by reference.

Regulation 61-62.60, Subpart CCCC:
Subpart CCCC is retitled "Standards of Performance for Commercial and Industrial Solid Waste Incineration Units" for consistency with federal regulations, and Subpart CCCC, Table, is amended to incorporate federal revisions at 81 FR 40956, June 23, 2016 by reference.

Regulation 61-62.60, Subpart DDDD:
Subpart DDDD is retitled "Emissions Guidelines and Compliance Times for Commercial and Industrial Solid Waste Incineration Units" for consistency with federal regulations, and Subpart DDDD, Table, is amended to incorporate federal revisions at 81 FR 40956, June 23, 2016 by reference.

Regulation 61-62.60, Subpart IIII, "Standards of Performance for Stationary Compression Ignition Internal Combustion Engines":
Subpart IIII, Table, is amended to incorporate federal revisions at 81 FR 44212, July 7, 2016 by reference.

Regulation 61-62.60, Subpart JJJJ, "Standards of Performance for Stationary Spark Ignition Internal Combustion Engines":
Subpart JJJJ, Table, is amended to incorporate federal revisions at 81 FR 59800, August 30, 2016 by reference.

Regulation 61-62.60, Subpart KKKK, "Standards of Performance for Stationary Combustion Turbines":
Subpart KKKK, Table, is amended to incorporate federal revisions at 81 FR 42542, June 30, 2016 by reference.

Regulation 61-62.60, Subpart OOOO:
Subpart OOOO is retitled "Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution for which Construction, Modification or Reconstruction Commenced after August 23, 2011, and on or before September 18, 2015" for consistency with federal regulations, and Subpart OOOO, Table, is amended to incorporate federal revisions at 81 FR 35824, June 3, 2016; 81 FR 42542, June 30, 2016; and 81 FR 43950, July 6, 2016 by reference.

Regulation 61-62.60, Subpart OOOOa, "Standards of Performance for Crude Oil and Natural Gas Facilities for Which Construction, Modification, or Reconstruction Commenced After September 18, 2015":
Subpart OOOOa, Table, is added to incorporate newly promulgated federal regulations at 81 FR 35824, June 3, 2016 by reference.

Regulation 61-62.61, National Emission Standards for Hazardous Air Pollutants (NESHAP)

Regulation 61-62.61, Subpart A, "General Provisions":
Subpart A, Table, is amended to incorporate federal revisions at 81 FR 59800, August 30, 2016 by reference.

Regulation 61-62.63, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Categories

Regulation 61-62.63, Subpart A, "General Provisions":
Subpart A, Table, is amended to incorporate federal revisions at 81 FR 59800, August 30, 2016 by reference.

Regulation 61-62.63, Subpart B, Section 63.44, "Requirements for Constructed or Reconstructed Major Sources Subject to a Subsequently Promulgated MACT Standard or MACT Requirement":
Subpart B, Section 63.44 is amended to restore paragraph (c), which was inadvertently removed by editing error.

Regulation 61-62.63, Subpart CC, "National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries":
Subpart CC, Table, is amended to incorporate federal revisions at 81 FR 45232, July 13, 2016 by reference.

Regulation 61-62.63, Subpart GG, "National Emission Standards for Aerospace Manufacturing and Rework Facilities":
Subpart GG, Table, is amended to incorporate federal revisions at 81 FR 51114, August 3, 2016 by reference.

Regulation 61-62.63, Subpart LLL, "National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry":
Subpart LLL, Table, is amended to incorporate federal revisions at 81 FR 48356, July 25, 2016 by reference.

Regulation 61-62.63, Subpart RRR, "National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production":
Subpart RRR, Table, is amended to incorporate federal revisions at 81 FR 38085, June 13, 2016 by reference.

Regulation 61-62.63, Subpart UUU, "National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units":
Subpart UUU, Table, is amended to incorporate federal revisions at 81 FR 45232, July 13, 2016 by reference.

Regulation 61-62.63, Subpart UUUUU, "National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units":
Subpart UUUUU, Table, is amended to incorporate federal revisions at 81 FR 20172, April 6, 2016 by reference.

Regulation 61-62.63, Subpart EEEEEE, "National Emission Standards for Hazardous Air Pollutants for

Primary Copper Smelting Area Sources":
Subpart EEEEEE is amended to add the phrase "and as subsequently amended upon publication in the Federal Register" for clarity.

Regulation 61-62.63, Subpart JJJJJJ:
Subpart JJJJJJ is retitled "National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources" for consistency with federal regulations, and Subpart JJJJJJ, Table, is amended to incorporate federal revisions at 81 FR 63112, September 14, 2016 by reference.

Regulation 61-62.70, Title V Operating Permit Program

Regulation 61-62.70, Section 70.7, Permit issuance, renewal, reopening, and revisions:
Paragraph (e)(2)(ii)(C) is amended to strike the section symbol "§" and replace with the word "Section" to provide clarity and consistency.

Regulation 61-62.70, Section 70.7, Permit issuance, renewal, reopening, and revisions:
Paragraphs (h)(1) and (2) are amended to address federal revisions to public notice provisions for Clean Air Act permitting programs at 81 FR 71613, October 18, 2016.

Regulation 61-62.70, Section 70.9, Fee determination and certification:
Paragraph (b)(2)(ii)(A) is amended to strike the section symbol "§" and replace with the word "Section" to provide clarity and consistency.

Regulation 61-62.97, Cross-State Air Pollution Rule (CSAPR) Trading Program

Regulation 61-62.97 is added to incorporate the EPA's CSAPR trading program for South Carolina in 40 CFR Part 97 for NO_X (Annual) and SO_2 (Annual), as published in the *Federal Register* on August 8, 2011 (76 FR 48208), June 12, 2012 (77 FR 34830), and subsequently amended on December 3, 2014 (79 FR 71663), and October 26, 2016 (81 FR 74504). This regulation will address mandatory transport and regional haze SIP infrastructure elements pursuant to 42 U.S.C. Sections 7410 and 7491.

Notice of Public Hearing and Opportunity for Public Comment:

Interested persons may submit written comments on the proposed regulation by writing to Marie F. Brown by mail at Bureau of Air Quality, South Carolina Department of Health and Environmental Control, 2600 Bull Street, Columbia, SC 29201; by facsimile at (803) 898-4487; or by e-mail at brownmf@dhec.sc.gov. To be considered, comments must be received no later than 5:00 p.m. on June 26, 2017, the close of the comment period. Comments received during the write-in public comment period by the deadline set forth above shall be submitted to the Board of Health and Environmental Control ("Board") in a Summary of Public Comments and Department Responses for the Board's consideration at the public hearing.

Interested persons may also make oral and/or written comments on the proposed amendments to R. 61-62, Air Pollution Control Regulations and Standards, at a public hearing to be conducted by the Board of Health and Environmental Control at its regularly scheduled meeting on August 10, 2017. The Board will conduct the public hearing in the Board Room, Third floor, Aycock Building of the Department of Health and Environmental Control at 2600 Bull Street, Columbia, South Carolina 29201. The Board meeting commences at 10:00 a.m. at which time the Board will consider items on its agenda in the order presented. The order of presentation for public hearings will be noted in the Board's agenda published by

the Department twenty-four (24) hours in advance of the meeting at the following address: http://www.scdhec.gov/Agency/docs/AGENDA.PDF. Persons desiring to make oral comments at the hearing are asked to limit their statements to five minutes or less and, as a courtesy, are asked to provide written copies of their presentation for the record. Due to admittance procedures at the DHEC Building, all visitors should enter through the Bull Street entrance and register at the front desk.

Copies of the proposed amendments for public comment as published in the *State Register* May 26, 2017 may be obtained online in the DHEC Regulation Development Update at http://www.scdhec.gov/Agency/RegulationsAndUpdates/RegulationDevelopmentUpdate/. A copy can also be obtained by contacting Marie F. Brown at the above address or by email at brownmf@dhec.sc.gov

Statement of Need and Reasonableness:

This Statement of Need and Reasonableness was determined by staff analysis pursuant to S.C. Code Section 1-23-115(C)(1)-(3) and (9)-(11).

DESCRIPTION OF REGULATION:

Amendment of Regulation 61-62, *Air Pollution Control Regulations and Standards*, and the South Carolina Air Quality Implementation Plan ("SIP").

Purpose:
(1) The United States Environmental Protection Agency ("EPA") promulgated amendments to national air quality standards in 2016. The recent federal amendments include clarification, guidance and technical revisions to SIP requirements promulgated pursuant to 42 U.S.C. Sections 7410 & 7413, New Source Performance Standards ("NSPS") mandated by 42 U.S.C. Section 7411, federal National Emission Standards for Hazardous Air Pollutants ("NESHAP") for Source Categories mandated by 42 U.S.C. Section 7412, and Prevention of Significant Deterioration ("PSD") and Title V Operating Program provisions promulgated under title I and title V of the CAA.

(2) The Department therefore proposes to amend Regulation 61-62.1, *Definitions and General Requirements*; Regulation 61-62.5, Standard No. 7, *Prevention of Significant Deterioration*; Regulation 61-62.60, *South Carolina Designated Facility Plan and New Source Performance Standards*; Regulation 61-62.61, *National Emission Standards for Hazardous Air Pollutants*; Regulation 61-62.63, *National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Categories*; Regulation 61-62.70, *Title V Operating Permit Program*; and the SIP, to adopt the federal amendments to these standards promulgated from January 1, 2016, through December 31, 2016.

(3) The Department also proposes to add Regulation 61-62.97, *Cross-State Air Pollution Rule (CSAPR) Trading Program*, to incorporate the EPA's CSAPR trading program for South Carolina in 40 CFR Part 97 for NO_X (Annual) and SO_2 (Annual), as published in the *Federal Register* on August 8, 2011 (76 FR 48208), June 12, 2012 (77 FR 34830), and subsequently amended on December 3, 2014 (79 FR 71663), and October 26, 2016 (81 FR 74504). This regulation will address mandatory transport and regional haze SIP infrastructure elements pursuant to 42 U.S.C. Sections 7410 and 7491.

(4) The Department is also proposing other changes to Regulation 61-62 that include corrections for internal consistency, clarification, reference, punctuation, codification, formatting, and spelling to improve the overall text of Regulation 61-62 as necessary.

Legal Authority:

The South Carolina Pollution Control Act, 1976 Code Section 48-1-10 et seq. ("Pollution Control Act"), authorizes the Department to adopt emission control regulations, standards, and limitations, and take all actions necessary or appropriate to secure to the State the benefits of federal air pollution control laws. Pursuant to the Pollution Control Act, along with the federal Clean Air Act, 42 U.S.C. Sections 7410, 7413, and 7416, the Department must ensure national primary and secondary ambient air quality standards are achieved and maintained in South Carolina. No state may adopt or enforce an emission standard or limitation less stringent than these federal standards or limitations pursuant to 42 U.S.C. Section 7416.

Plan for Implementation:
The proposed amendments will take effect upon approval by the Board of Health and Environmental Control and publication in the *State Register*. These requirements are in place at the federal level and are currently being implemented. The proposed amendments will be implemented in South Carolina by providing the regulated community with copies of the regulation, publishing associated information on our website at http://www.scdhec.gov/Agency/RegulationsAndUpdates/, sending an email to stakeholders, and communicating with affected facilities during the permitting process.

DETERMINATION OF NEED AND REASONABLENESS OF THE PROPOSED REGULATION BASED ON ALL FACTORS HEREIN AND EXPECTED BENEFITS:

The EPA promulgates amendments to 40 CFR Parts 50, 51, 52, 60, 61, 63, and 70 throughout each calendar year. Federal amendments in 2016 included new and revised NSPS rules, NESHAPs, and NESHAPs for Source Categories, and amendments to PSD and Title V permitting provisions. The Department is adopting these federal amendments to maintain compliance with federal law. The EPA has also promulgated regulations under 40 CFR Part 97 establishing CSAPR trading provisions for South Carolina for NO_X (Annual) and SO_2 (Annual). Adoption of the federal CSAPR trading program is necessary to address mandatory transport and regional haze SIP infrastructure elements pursuant to 42 U.S.C. Sections 7410 and 7491. The above amendments are reasonable as they promote consistency and ensure compliance with both state and federal regulations.

DETERMINATION OF COSTS AND BENEFITS:

There is not anticipated increase in costs to the State or its political subdivisions resulting from these proposed revisions. The standards to be adopted are already in effect and applicable to the regulated community as a matter of federal law, thus the regulated community has already incurred the cost of these regulations. The proposed amendments incorporate the revisions to the EPA regulations, which the Department implements pursuant to the authority granted by Section 48-1-50 of the Pollution Control Act. The proposed amendments will benefit the regulated community by clarifying the regulations and increasing their ease of use.

UNCERTAINTIES OF ESTIMATES:

There are no uncertainties of estimates relative to the costs to the State or its political subdivisions.

EFFECT ON ENVIRONMENT AND PUBLIC HEALTH:

Adoption of the recent changes in federal regulations through the proposed amendments to Regulation 61-62, *Air Pollution Control Regulations and Standards*, will provide continued protection of the environment and public health.

DETRIMENTAL EFFECT ON THE ENVIRONMENT AND PUBLIC HEALTH IF THE REGULATIONS ARE NOT IMPLEMENTED:

The State's authority to implement federal requirements, which are beneficial to the public health and environment, would be compromised if these amendments were not adopted in South Carolina.

Text:

Deleted text is ~~stricken~~
New text is underlined.

Regulation 61-62.1, Section I, Definitions

Regulation 61-62.1.I.100.c. shall be deleted in its entirety as follows:

~~c. The following compound(s) are VOCs for purposes of all recordkeeping, emissions reporting, photo-chemical dispersion modeling, and inventory requirements which apply to VOCs and shall be uniquely identified in emission reports, but are not VOCs for purposes of VOC emissions limitations or VOC content requirements: t-butyl acetate (TBAC or TBAc).~~

Regulation 61-62.5, Standard No. 5.2, Control of Oxides of Nitrogen (NO_X)

Regulation 61-62.5, Standard No. 5.2, Section III, Table 1 at Pulverized Coal-Fired Boilers shall be revised as follows:

Pulverized Coal-Fired Boilers	
< 250 MMBtu/hr	Low-NO_X Burners + Combustion controls to minimize NO_X emissions or equivalent technology, shall achieve 0.35 lb/MMBtu
≥ 250 MMBtu/hr	Low-NO_X Burners + Combustion controls to minimize NO_X emissions + ~~**Selective Catalytic Reduction**~~ Selective Catalytic Reduction (SCR) or equivalent technology, shall achieve 0.14 lb/MMBtu

Regulation 61-62.5, Standard No. 5.2, Section III, Table 1 at Internal Combustion Engines shall be revised as follows:

Internal Combustion Engines	
Compression Ignition	~~*Timing Retard ≤ 4 degrees + Turbocharger with Intercooler*~~ Timing Retard ≤ 4 degrees + Turbocharger with Intercooler or equivalent technology, shall achieve ~~*490 ppmv*~~ 490 ppmv at ~~*15*~~ 15 percent ~~O_2~~ O_2 (7.64 gram per bhp-hour (gm/bhp-hr))
Spark Ignition	Lean-Burn Technology or equivalent technology, shall achieve 1.0 gm/bhp-hr
Landfill or Digester Gas-Fired	Lean-Burn Technology or equivalent technology, shall achieve 1.25 gm/bhp-hr

Regulation 61-62.5, Standard No. 5.2, Section III, Title shall be revised as follows:

SECTION III - STANDARD REQUIREMENTS FOR NEW AFFECTED SOURCES

Regulation 61-62.5, Standard No. 5.2, Section III.A. shall be revised as follows:

A. Those affected sources as defined in Section I(A)(1) and (A)(3) above shall apply NO_X controls to achieve the limitations provided in Table 1 of this section.

Regulation 61-62.5, Standard No. 5.2, Section IV.A(2)(a) shall be revised as follows:

(a) Unless required to operate a CEMS, testing requirements apply to boilers rated thirty (30) MMBtu/hr or greater ~~or~~ permitted for solid fuels and boilers rated greater than one hundred (100) MMBtu/hr permitted for any other fuels.

Regulation 61-62.5, Standard No. 5.2, Section IV.B(5) shall be revised as follows:

(5) Other Requirements

The owner ~~of~~ or operator shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected source; any malfunction of the air pollution control equipment; and any periods during which a continuous monitoring system or monitoring device is inoperative.

Regulation 61-62.5, Standard No. 7, Prevention of Significant Deterioration

Regulation 61-62.5, Standard No. 7, Section (b)(34)(vi) shall be revised as follows:

(vi) A decrease in actual emissions is creditable only to the extent that:

(a) The old level of actual emissions or the old level of allowable emissions, whichever is lower, exceeds the new level of actual emissions;

(b) It is federally enforceable at and after the time that actual construction on the particular change begins; and

(c) It has approximately the same qualitative significance for public health and welfare as that attributed to the increase from the particular change~~; and~~.

Regulation 61-62.5, Standard No. 7, Section (q)(2)(ii) shall be revised as follows:

(ii) Make available in at least one location in each region in which the proposed source or modification would be constructed, a copy of all materials the applicant submitted, a copy of the preliminary determination and a copy or summary of other materials, if any, considered in making the preliminary determination. This requirement may be met by making these materials available at a physical location or on a public website identified by the Department.

Regulation 61-62.5, Standard No. 7, Section (q)(2)(iii) shall be revised as follows:

(iii) Notify the public, by advertisement in a newspaper of general circulation in each region in which the proposed source or modification would be constructed, of the application, the preliminary determination, the degree of increment consumption that is expected from the source or modification, and the opportunity for comment at a public hearing as well as written public comment. Alternatively, these notifications may be made on a public website identified by the Department. However, the Department's

selected notification method (i.e., either newspaper or website), known as the "consistent noticing method," shall be used for all permits subject to notice under this section and may, when appropriate, be supplemented by other noticing methods on individual permits. If the Department selects website notice as its consistent noticing method, the notice shall be available for the duration of the public comment period and shall include the notice of public comment, the draft permit, information on how to access the administrative record for the draft permit and how to request and/or attend a public hearing on the draft permit.

Regulation 61-62.5, Standard No. 7, Section (q)(2)(vi) shall be revised as follows:

(vi) Consider all written comments submitted within a time specified in the notice of public comment and all comments received at any public hearing~~(s)~~ in making a final decision on the approvability of the application. No later than ten (10) days after the close of the public comment period, the applicant may submit a written response to any comments submitted by the public. The Department shall consider the applicant's response in making a final decision. The Department shall make all comments available for public inspection in the same ~~locations where the Department made available preconstruction information relating to the proposed source or modification~~ location or on the same website where the Department made available preconstruction information relating to the proposed source or modification.

Regulation 61-62.5, Standard No. 7, Section (q)(2)(viii) shall be revised as follows:

(viii) Notify the applicant in writing of the final determination and make such notification available for public inspection at the same location or on the same website where the Department made available preconstruction information and public comments relating to the source or modification.

Regulation 61-62.5, Standard No. 7, Section (v) shall be revised as follows:

(3) The Department shall withdraw any approval to employ a system of innovative control technology made under this section, if:

(i) The proposed system fails by the specified date to achieve the required continuous emissions reduction rate; or

(ii) The proposed system fails before the specified date so as to contribute to an unreasonable risk to public health, welfare, or safety; or

(iii) The Department decides at any time that the proposed system is unlikely to achieve the required level of control or to protect the public health, welfare, or safety.

(4) If a source or modification fails to meet the required level of continuous emission reduction within the specified time period or the approval is withdrawn in accordance with paragraph (v)(3), the Department may allow the source or modification up to an additional three (3) years to meet the requirement for the application of best available control technology through use of a demonstrated system of control.

~~(i) The proposed system fails by the specified date to achieve the required continuous emissions reduction rate; or~~

~~(ii) The proposed system fails before the specified date so as to contribute to an unreasonable risk to~~

~~public health, welfare, or safety; or~~

~~(iii) The Department decides at any time that the proposed system is unlikely to achieve the required level of control or to protect the public health, welfare, or safety.~~

Regulation 61-62.5, Standard No. 7, Section (w) shall be revised as follows:

~~(w)~~**(w)** **Permit rescission.**

Regulation 61-62.5, Standard No. 7, Section (w)(1) shall be revised as follows:

(1) Any permit issued under this section or a prior version of this regulation shall remain in effect, unless and until it expires or is rescinded~~.~~ under this paragraph (w)(1).

Regulation 61-62.5, Standard No. 7, Section (w)(2) shall be revised as follows:

(2) Any owner or operator of a stationary source or modification who holds a permit ~~for the source or modification which was issued under 40 CFR 52.21 as in effect on July 30, 1987, or any earlier version of this regulation,~~ issued under this section for the construction of a new source or modification that meets the requirement in paragraph (w)(3) of this section may request that the Department rescind the permit or a particular portion of the permit.

Regulation 61-62.5, Standard No. 7, Section (w)(3) shall be revised as follows:

(3) The Department ~~shall~~ may grant an application for rescission if the application shows that this section would not apply to the source or modification.

Regulation 61-62.5, Standard No. 7, Section (w)(4) shall be revised as follows:

(4) If the Department rescinds a permit under this paragraph, ~~the public shall be given adequate notice of the rescission. Publication of an announcement of rescission in a newspaper of general circulation in the affected region within 60 days of the rescission shall be considered adequate notice.~~ the Department shall post a notice of the rescission determination on a public website identified by the Department within 60 days of the rescission.

Regulation 61-62.5, Standard No. 7, Section (aa) shall be revised as follows:

~~(aa)~~**(aa)** **Actuals PALs.** The provisions in paragraphs (aa)(1) through ~~(15)~~ (aa)(15) govern actuals PALs.

Regulation 61-62.5, Standard No. 7, Section (aa)(1)(i) shall be revised as follows:

(i) The Department may approve the use of an actuals PAL for any existing major stationary source if the PAL meets the requirements in paragraphs (aa)(1) through ~~(aa)(15)~~ (aa)(15). The term "PAL" shall mean "actuals PAL" throughout paragraph (aa).

Regulation 61-62.5, Standard No. 7, Section (aa)(9) shall be revised as follows:

(9) **Expiration of a PAL.** Any PAL that is not renewed in accordance with the procedures in paragraph (aa)(10) shall expire at the end of the PAL effective period, and the requirements in paragraphs (aa)(9)(i)

through ~~(aa)(9)(i)(v)~~ (aa)(9)(v) shall apply.

Regulation 61-62.5, Standard No. 7, Section (aa)(11)(i) shall be revised as follows:

(i) The Department may increase a PAL emission limitation only if the major stationary source complies with the provisions in paragraphs (aa)(11)(i)(a) through ~~(aa)(10)(iv)(d)~~ (aa)(11)(i)(d).

Regulation 61-62.5, Standard No. 7, Section (aa)(14)(i) shall be revised as follows:

(i) **Semi-annual report.** The semi-annual report shall be submitted to the Department within 30 days of the end of each reporting period. This report shall contain the information required in paragraphs (aa)(14)(i)(a) through (aa)(14)(i)(g).

Regulation 61-62.5, Standard No. 7, Section (bb) shall be revised as follows:

~~(bb)~~**(bb)** If any provision of this regulation, or the application of such provision to any person or circumstance, is held invalid, the remainder of this regulation, or the application of such provision to persons or circumstances other than those to which it is held invalid, shall not be affected thereby.

Regulation 61-62.60, South Carolina Designated Facility Plan and New Source Performance Standards

Regulation 61-62.60, Subpart A, shall be revised as follows:

Subpart A - "General Provisions"

The provisions of 40 Code of Federal Regulations (CFR) Part 60 Subpart A, as originally published in the Federal Register and as subsequently amended upon publication in the Federal Register as listed below, are incorporated by reference as if fully repeated herein.

40 CFR Part 60 Subpart A			
Federal Register Citation	**Volume**	**Date**	**Notice**
Original Promulgation	Vol. 36	December 23, 1971	[36 FR 24877]
Revision	Vol. 38	October 15, 1973	[38 FR 28565]
Revision	Vol. 39	March 8, 1974	[39 FR 9314]
Revision	Vol. 39	November 12, 1974	[39 FR 39873]
Revision	Vol. 40	April 25, 1975	[40 FR 18169]
Revision	Vol. 40	October 6, 1975	[40 FR 46254]
Revision	Vol. 40	November 17, 1975	[40 FR 53346]
Revision	Vol. 40	December 16, 1975	[40 FR 58418]
Revision	Vol. 40	December 22, 1975	[40 FR 59205]
Revision	Vol. 41	August 20, 1976	[41 FR 35185]
Revision	Vol. 42	July 19, 1977	[42 FR 37000]
Revision	Vol. 42	July 27, 1977	[42 FR 38178]
Revision	Vol. 42	November 1, 1977	[42 FR 57126]
Revision	Vol. 43	March 3, 1978	[43 FR 8800]
Revision	Vol. 43	August 3, 1978	[43 FR 34347]
Revision	Vol. 44	June 11, 1979	[44 FR 33612]

Revision	Vol. 44	September 25, 1979	[44 FR 55173]
Revision	Vol. 45	January 23, 1980	[45 FR 5617]
Revision	Vol. 45	April 4, 1980	[45 FR 23379]
Revision	Vol. 45	December 24, 1980	[45 FR 85415]
Revision	Vol. 47	January 8, 1982	[47 FR 951]
Revision	Vol. 47	July 23, 1982	[47 FR 31876]
Revision	Vol. 48	March 30, 1983	[48 FR 13326]
Revision	Vol. 48	May 25, 1983	[48 FR 23610]
Revision	Vol. 48	July 20, 1983	[48 FR 32986]
Revision	Vol. 48	October 18, 1983	[48 FR 48335]
Revision	Vol. 50	December 27, 1985	[50 FR 53113]
Revision	Vol. 51	January 15, 1986	[51 FR 1790]
Revision	Vol. 51	January 21, 1986	[51 FR 2701]
Revision	Vol. 51	November 25, 1986	[51 FR 42796]
Revision	Vol. 52	March 26, 1987	[52 FR 9781, 9782]
Revision	Vol. 52	April 8, 1987	[52 FR 11428]
Revision	Vol. 52	May 11, 1987	[52 FR 17555]
Revision	Vol. 52	June 4, 1987	[52 FR 21007]
Revision	Vol. 54	February 14, 1989	[54 FR 6662]
Revision	Vol. 54	May 17, 1989	[54 FR 21344]
Revision	Vol. 55	December 13, 1990	[55 FR 51382]
Revision	Vol. 57	July 21, 1992	[57 FR 32338, 32339]
Revision	Vol. 59	March 16, 1994	[59 FR 12427, 12428]
Revision	Vol. 59	September 15, 1994	[59 FR 47265]
Revision	Vol. 61	March 12, 1996	[61 FR 9919]
Revision	Vol. 62	February 24, 1997	[62 FR 8328]
Revision	Vol. 62	September 15, 1997	[62 FR 48348]
Revision	Vol. 63	May 4, 1998	[63 FR 24444]
Revision	Vol. 64	February 12, 1999	[64 FR 7463]
Revision	Vol. 65	August 10, 2000	[65 FR 48914]
Revision	Vol. 65	October 17, 2000	[65 FR 61744]
Revision	Vol. 65	December 6, 2000	[65 FR 76350, 76378]
Revision	Vol. 65	December 14, 2000	[65 FR 78268]
Revision	Vol. 66	February 6, 2001	[66 FR 9034]
Revision	Vol. 67	June 28, 2002	[67 FR 43550]
Revision	Vol. 68	April 14, 2003	[68 FR 17990]
Revision	Vol. 68	May 28, 2003	[68 FR 31611]
Revision	Vol. 69	July 8, 2004	[69 FR 41346]
Revision	Vol. 70	December 16, 2005	[70 FR 74870]
Revision	Vol. 71	June 1, 2006	[71 FR 31100]
Revision	Vol. 71	July 6, 2006	[71 FR 38482]
Revision	Vol. 72	May 16, 2007	[72 FR 27437]
Revision	Vol. 72	June 13, 2007	[72 FR 32710]
Revision	Vol. 73	January 18, 2008	[73 FR 3568]
Revision	Vol. 73	April 3, 2008	[73 FR 18162]

Revision	Vol. 73	May 6, 2008	[73 FR 24870]
Revision	Vol. 73	May 27, 2008	[73 FR 30308]
Revision	Vol. 73	June 24, 2008	[73 FR 35838]
Revision	Vol. 73	December 22, 2008	[73 FR 78199]
Revision	Vol. 74	January 28, 2009	[74 FR 5072]
Revision	Vol. 74	October 6, 2009	[74 FR 51368]
Revision	Vol. 74	October 8, 2009	[74 FR 51950]
Revision	Vol. 74	December 17, 2009	[74 FR 66921]
Revision	Vol. 75	September 9, 2010	[75 FR 54970]
Revision	Vol. 75	September 13, 2010	[75 FR 55636]
Revision	Vol. 76	January 18, 2011	[76 FR 2832]
Revision	Vol. 76	March 21, 2011	[76 FR 15372]
Revision	Vol. 76	March 21, 2011	[76 FR 15704]
Revision	Vol. 77	February 16, 2012	[77 FR 9304]
Revision	Vol. 77	August 14, 2012	[77 FR 48433]
Revision	Vol. 77	September 12, 2012	[77 FR 56422]
Revision	Vol. 78	January 30, 2013	[78 FR 6674]
Revision	Vol. 79	February 27, 2014	[79 FR 11228]
Revision	Vol. 79	April 4, 2014	[79 FR 18952]
Revision	Vol. 80	March 16, 2015	[80 FR 13671]
Revision	Vol. 81	June 3, 2016	[81 FR 35824]
Revision	Vol. 81	June 30, 2016	[81 FR 42542]
Revision	Vol. 81	August 29, 2016	[81 FR 59276, 59332]
Revision	Vol. 81	August 30, 2016	[81 FR 59800]

Regulation 61-62.60, Subpart Cf, shall be added in alpha-numeric order as follows:

Subpart Cf - "Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills"

The provisions of 40 CFR Part 60 Subpart Cf, as originally published in the Federal Register as listed below, are incorporated by reference as if fully repeated herein.

40 CFR Part 60 Subpart Cf			
Federal Register Citation	**Volume**	**Date**	**Notice**
Original Promulgation	Vol. 81	August 29, 2016	[81 FR 59276]

Regulation 61-62.60, Subpart Da, shall be revised as follows:

Subpart Da - "Standards of Performance for Electric Utility Steam Generating Units for Which Construction Is Commenced After September 18, 1978"

The provisions of 40 CFR Part 60 Subpart Da, as originally published in the Federal Register and as subsequently amended upon publication in the Federal Register as listed below, are incorporated by reference as if fully repeated herein.

40 CFR Part 60 Subpart Da

Federal Register Citation	Volume	Date	Notice
Original Promulgation	Vol. 44	June 11, 1979	[44 FR 33613]
Revision	Vol. 48	January 27, 1983	[48 FR 3737]
Revision	Vol. 54	February 14, 1989	[54 FR 6663]
Revision	Vol. 54	May 17, 1989	[54 FR 21344]
Revision	Vol. 55	February 14, 1990	[55 FR 5212]
Revision	Vol. 55	May 7, 1990	[55 FR 18876]
Revision	Vol. 63	September 16, 1998	[63 FR 49453, 49454]
Revision	Vol. 64	February 12, 1999	[64 FR 7464]
Revision	Vol. 65	October 17, 2000	[65 FR 61744]
Revision	Vol. 66	April 10, 2001	[66 FR 18546]
Revision	Vol. 66	June 11, 2001	[66 FR 31177]
Revision	Vol. 66	August 14, 2001	[66 FR 42608]
Revision	Vol. 71	February 27, 2006	[71 FR 9866]
Revision	Vol. 72	June 13, 2007	[72 FR 32710]
Revision	Vol. 74	January 28, 2009	[74 FR 5072]
Revision	Vol. 76	January 20, 2011	[76 FR 3517]
Revision	Vol. 77	February 16, 2012	[77 FR 9304]
Revision	Vol. 77	April 19, 2012	[77 FR 23399]
Revision	Vol. 78	April 24, 2013	[78 FR 24073]
Revision	Vol.79	November 19, 2014	[79 FR 68777]
Revision	Vol. 81	April 6, 2016	[81 FR 20172]

Regulation 61-62.60, Subpart Ja, shall be revised as follows:

Subpart Ja - "Standards of Performance for Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007"

The provisions of 40 CFR Part 60 Subpart Ja, as originally published in the Federal Register and as subsequently amended upon publication in the Federal Register as listed below, are incorporated by reference as if fully repeated herein.

40 CFR Part 60 Subpart Ja			
Federal Register Citation	**Volume**	**Date**	**Notice**
Original Promulgation	Vol. 73	June 24, 2008	[73 FR 35838]
Revision	Vol. 73	July 28, 2008	[73 FR 43626]
Revision	Vol. 73	September 26, 2008	[73 FR 55751]
Revision	Vol. 73	December 22, 2008	[73 FR 78546]
Revision	Vol. 73	December 22, 2008	[73 FR 78549]
Revision	Vol. 77	September 12, 2012	[77 FR 56422]
Revision	Vol. 78	December 19, 2013	[78 FR 76753]
Revision	Vol. 80	December 1, 2015	[80 FR 75178]
Revision	Vol. 81	July 13, 2016	[81 FR 45232]

Regulation 61-62.60, Subpart GG, shall be revised as follows:

Subpart GG - "Standards of Performance for Stationary Gas Turbines"

The provisions of 40 CFR Part 60 Subpart GG, as originally published in the Federal Register and as subsequently amended upon publication in the Federal Register as listed below, are incorporated by reference as if fully repeated herein.

40 CFR Part 60 Subpart GG			
Federal Register Citation	**Volume**	**Date**	**Notice**
Original Promulgation	Vol. 44	September 10, 1979	[44 FR 52798]
Revision	Vol. 47	January 27, 1982	[47 FR 3770]
Revision	Vol. 52	November 5, 1987	[52 FR 42434]
Revision	Vol. 54	February 14, 1989	[54 FR 6674]
Revision	Vol. 54	June 27, 1989	[54 FR 27016]
Revision	Vol. 65	October 17, 2000	[65 FR 61744]
Revision	Vol. 68	April 14, 2003	[68 FR 17990]
Revision	Vol. 69	July 8, 2004	[69 FR 41346]
Revision	Vol. 71	February 24, 2006	[71 FR 9453]
Revision	Vol. 79	February 27, 2014	[79 FR 11228]
Revision	Vol. 81	June 30, 2016	[81 FR 42542]

Regulation 61-62.60, Subpart BBB, shall be revised as follows:

Subpart BBB - "Standards of Performance for the Rubber Tire Manufacturing Industry"

The provisions of 40 CFR Part 60 Subpart BBB, as originally published in the Federal Register and as subsequently amended upon publication in the Federal Register as listed below, are incorporated by reference as if fully repeated herein.

40 CFR Part 60 Subpart BBB			
Federal Register Citation	**Volume**	**Date**	**Notice**
Original Promulgation	Vol. 52	September 15, 1987	[52 FR 34874]
Revision	Vol. 52	October 9, 1987	[52 FR 37874]
Revision	Vol. 54	September 19, 1989	[54 FR 38635]
Revision	Vol. 65	October 17, 2000	[65 FR 61744]
Revision	Vol. 81	June 30, 2016	[81 FR 42542]
Revision	Vol. 81	July 6, 2016	[81 FR 43950]

Regulation 61-62.60, Subpart DDD, shall be revised as follows:

Subpart DDD - "Standards of Performance for Volatile Organic Compound (VOC) Emissions from the Polymer Manufacturing Industry"

The provisions of 40 CFR Part 60 Subpart DDD, as originally published in the Federal Register and as subsequently amended upon publication in the Federal Register as listed below, are incorporated by reference as if fully repeated herein.

40 CFR Part 60 Subpart DDD

Federal Register Citation	Volume	Date	Notice
Original Promulgation	Vol. 55	December 11, 1990	[55 FR 51035]
Revision	Vol. 56	March 5, 1991	[56 FR 9178]
Revision	Vol. 56	March 22, 1991	[56 FR 12299]
Revision	Vol. 58	April 7, 1993	[58 FR 18014]
Revision	Vol. 64	March 9, 1999	[64 FR 11541]
Revision	Vol. 65	October 17, 2000	[65 FR 61744]
Revision	Vol. 65	December 14, 2000	[65 FR 78268]
Revision	Vol. 81	June 30, 2016	[81 FR 42542]

Regulation 61-62.60, Subpart III, shall be revised as follows:

Subpart III - "Standards of Performance for Volatile Organic Compound (VOC) Emissions from the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes"

The provisions of 40 CFR Part 60 Subpart III, as originally published in the Federal Register and as subsequently amended upon publication in the Federal Register as listed below, are incorporated by reference as if fully repeated herein.

40 CFR Part 60 Subpart III			
Federal Register Citation	**Volume**	**Date**	**Notice**
Original Promulgation	Vol. 55	June 29, 1990	[55 FR 26922]
Revision	Vol. 55	September 7, 1990	[55 FR 36932]
Revision	Vol. 65	October 17, 2000	[65 FR 61744]
Revision	Vol. 65	December 14, 2000	[65 FR 78268]
Revision	Vol. 81	June 30, 2016	[81 FR 42542]
Revision	Vol. 81	July 6, 2016	[81 FR 43950]

Regulation 61-62.60, Subpart LLL, shall be revised as follows:

Subpart LLL - "~~Standards of Performance for Onshore Natural Gas Processing: SO_2 Emissions~~ Standards of Performance for SO_2 Emissions from Onshore Natural Gas Processing for Which Construction, Reconstruction, or Modification Commenced After January 20, 1984, and on or Before August 23, 2011"

The provisions of 40 CFR Part 60 Subpart LLL, as originally published in the Federal Register and as subsequently amended upon publication in the Federal Register as listed below, are incorporated by reference as if fully repeated herein.

40 CFR Part 60 Subpart LLL			
Federal Register Citation	**Volume**	**Date**	**Notice**
Original Promulgation	Vol. 50	October 1, 1985	[50 FR 40160]
Revision	Vol. 54	February 14, 1989	[54 FR 6679]
Revision	Vol. 65	October 17, 2000	[65 FR 61744]
Revision	Vol. 77	August 16, 2012	[77 FR 49490]
Revision	Vol. 81	June 30, 2016	[81 FR 42542]
Revision	Vol. 81	July 6, 2016	[81 FR 43950]

Regulation 61-62.60, Subpart NNN, shall be revised as follows:

Subpart NNN - "Standards of Performance for Volatile Organic Compound (VOC) Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations"

The provisions of 40 CFR Part 60 Subpart NNN, as originally published in the Federal Register and as subsequently amended upon publication in the Federal Register as listed below, are incorporated by reference as if fully repeated herein.

40 CFR Part 60 Subpart NNN			
Federal Register Citation	**Volume**	**Date**	**Notice**
Original Promulgation	Vol. 55	June 29, 1990	[55 FR 26942]
Revision	Vol. 55	September 7, 1990	[55 FR 36932]
Revision	Vol. 60	November 27, 1995	[60 FR 58237, 58238]
Revision	Vol. 65	October 17, 2000	[65 FR 61744]
Revision	Vol. 65	December 14, 2000	[65 FR 78268]
Revision	Vol. 74	June 24, 2009	[74 FR 29948]
Revision	Vol. 79	February 27, 2014	[79 FR 11228]
Revision	Vol. 81	June 30, 2016	[81 FR 42542]
Revision	Vol. 81	July 6, 2016	[81 FR 43950]

Regulation 61-62.60, Subpart XXX, shall be added in alpha-numeric order as follows:

Subpart XXX - "Standards of Performance for Municipal Solid Waste Landfills that Commenced Construction, Reconstruction, or Modification After July 17, 2014"

The provisions of 40 CFR Part 60 Subpart XXX, as originally published in the Federal Register as listed below, are incorporated by reference as if fully repeated herein.

40 CFR Part 60 Subpart XXX			
Federal Register Citation	**Volume**	**Date**	**Notice**
Original Promulgation	Vol. 81	August 29, 2016	[81 FR 59332]

Regulation 61-62.60, Subpart CCCC, shall be revised as follows:

Subpart CCCC - "Standards of Performance for Commercial and Industrial Solid Waste Incineration Units ~~for Which Construction Is Commenced After November 30, 1999, or for Which Modification or Reconstruction Is Commenced on or After June 1, 2001~~"

The provisions of 40 CFR Part 60 Subpart CCCC, as originally published in the Federal Register and as subsequently amended upon publication in the Federal Register as listed below, are incorporated by reference as if fully repeated herein.

40 CFR Part 60 Subpart CCCC			
Federal Register Citation	**Volume**	**Date**	**Notice**
Original Promulgation	Vol. 65	December 1, 2000	[65 FR 75338]
Revision	Vol. 66	March 27, 2001	[66 FR 16605]

Revision	Vol. 70	September 22, 2005	[70 FR 55568]
Revision	Vol. 76	May 18, 2011	[76 FR 28662]
Revision	Vol. 78	February 7, 2013	[78 FR 9112]
Revision	Vol. 81	June 23, 2016	[81 FR 40956]

Regulation 61-62.60, Subpart DDDD, shall be revised as follows:

Subpart DDDD - "~~Emission~~ Emissions Guidelines and Compliance Times for Commercial and Industrial Solid Waste Incineration Units ~~that Commenced Construction on or Before November 30, 1999~~"

The provisions of 40 CFR Part 60 Subpart DDDD, as originally published in the Federal Register and as subsequently amended upon publication in the Federal Register as listed below, are incorporated by reference as if fully repeated herein.

40 CFR Part 60 Subpart DDDD			
Federal Register Citation	**Volume**	**Date**	**Notice**
Original Promulgation	Vol. 65	December 1, 2000	[65 FR 75338]
Revision	Vol. 70	September 22, 2005	[70 FR 55568]
Revision	Vol. 76	May 18, 2011	[76 FR 28662]
Revision	Vol. 78	February 7, 2013	[78 FR 9112]
Revision	Vol. 81	June 23, 2016	[81 FR 40956]

Regulation 61-62.60, Subpart IIII, shall be revised as follows:

Subpart IIII - "Standards of Performance for Stationary Compression Ignition Internal Combustion Engines"

The provisions of 40 CFR Part 60 Subpart IIII, as originally published in the Federal Register and as subsequently amended upon publication in the Federal Register as listed below, are incorporated by reference as if fully repeated herein.

40 CFR Part 60 Subpart IIII			
Federal Register Citation	**Volume**	**Date**	**Notice**
Original Promulgation	Vol. 71	July 11, 2006	[71 FR 39154]
Revision	Vol. 76	June 28, 2011	[76 FR 37954]
Revision	Vol. 78	January 30, 2013	[78 FR 6674]
Revision	Vol. 79	February 27, 2014	[79 FR 11228]
Revision	Vol. 81	July 7, 2016	[81 FR 44212]

Regulation 61-62.60, Subpart JJJJ, shall be revised as follows:

Subpart JJJJ - "Standards of Performance for Stationary Spark Ignition Internal Combustion Engines"

The provisions of 40 CFR Part 60 Subpart JJJJ, as originally published in the Federal Register and as subsequently amended upon publication in the Federal Register as listed below, are incorporated by reference as if fully repeated herein.

40 CFR Part 60 Subpart JJJJ			
Federal Register Citation	**Volume**	**Date**	**Notice**
Original Promulgation	Vol. 73	January 18, 2008	[73 FR 3568]
Revision	Vol. 73	October 8, 2008	[73 FR 59034]
Revision	Vol. 78	January 30, 2013	[78 FR 6674]
Revision	Vol. 79	February 27, 2014	[79 FR 11228]
Revision	Vol. 81	August 30, 2016	[81 FR 59800]

Regulation 61-62.60, Subpart KKKK, shall be revised as follows:

Subpart KKKK – "Standards of Performance for Stationary Combustion Turbines"

The provisions of 40 CFR Part 60 Subpart KKKK, as originally published in the Federal Register and as subsequently amended upon publication in the Federal Register as listed below, are incorporated by reference as if fully repeated herein.

40 CFR Part 60 Subpart KKKK			
Federal Register Citation	**Volume**	**Date**	**Notice**
Original Promulgation	Vol. 71	July 6, 2006	[71 FR 38482]
Revision	Vol. 74	March 20, 2009	[74 FR 11858]
Revision	Vol. 81	June 30, 2016	[81 FR 42542]

Regulation 61-62.60, Subpart OOOO, shall be revised as follows:

Subpart OOOO - "Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution for which Construction, Modification or Reconstruction Commenced after August 23, 2011, and on or before September 18, 2015"

The provisions of 40 CFR Part 60 Subpart OOOO, as originally published in the Federal Register and as subsequently amended upon publication in the Federal Register as listed below, are incorporated by reference as if fully repeated herein.

40 CFR Part 60 Subpart OOOO			
Federal Register Citation	**Volume**	**Date**	**Notice**
Original Promulgation	Vol. 77	August 16, 2012	[77 FR 49490]
Revision	Vol. 78	September 23, 2013	[78 FR 58416]
Revision	Vol. 79	December 31, 2014	[79 FR 79018]
Revision	Vol. 80	August 12, 2015	[80 FR 48262]
Revision	Vol. 81	June 3, 2016	[81 FR 35824]
Revision	Vol. 81	June 30, 2016	[81 FR 42542]
Revision	Vol. 81	July 6, 2016	[81 FR 43950]

Regulation 61-62.60, Subpart OOOOa, shall be added in alpha-numeric order as follows:

Subpart OOOOa - "Standards of Performance for Crude Oil and Natural Gas Facilities for Which Construction, Modification, or Reconstruction Commenced After September 18, 2015"

The provisions of 40 CFR Part 60 Subpart OOOOa, as originally published in the Federal Register as listed below, are incorporated by reference as if fully repeated herein.

40 CFR Part 60 Subpart OOOOa			
Federal Register Citation	**Volume**	**Date**	**Notice**
Original Promulgation	Vol. 81	June 3, 2016	[81 FR 35824]

Regulation 61-62.61, National Emission Standards for Hazardous Air Pollutants (NESHAP)

Regulation 61-62.61 Subpart A, shall be revised as follows:

Subpart A - "General Provisions"

The provisions of 40 Code of Federal Regulations (CFR) Part 61 Subpart A, as originally published in the Federal Register and as subsequently amended upon publication in the Federal Register as listed below, are incorporated by reference as if fully repeated herein.

40 CFR Part 61 Subpart A			
Federal Register Citation	**Volume**	**Date**	**Notice**
Original Promulgation	Vol. 38	April 6, 1973	[38 FR 8826]
Revision	Vol. 40	April 25, 1975	[40 FR 18170]
Revision	Vol. 40	October 14, 1975	[40 FR 48299]
Revision	Vol. 42	September 29, 1977	[42 FR 51574]
Revision	Vol. 44	September 25, 1979	[44 FR 55174]
Revision	Vol. 48	January 27, 1983	[48 FR 3740]
Revision	Vol. 48	December 9, 1983	[48 FR 55266]
Revision	Vol. 49	June 6, 1984	[49 FR 23520]
Revision	Vol. 50	November 7, 1985	[50 FR 46290]
Revision	Vol. 50	November 7, 1985	[50 FR 46291]
Revision	Vol. 50	November 7, 1985	[50 FR 46292]
Revision	Vol. 50	November 7, 1985	[50 FR 46293]
Revision	Vol. 50	November 7, 1985	[50 FR 46294]
Revision	Vol. 51	March 5, 1986	[51 FR 7715]
Revision	Vol. 51	March 5, 1986	[51 FR 7719]
Revision	Vol. 51	April 1, 1986	[51 FR 11022]
Revision	Vol. 51	September 30, 1986	[51 FR 34914]
Revision	Vol. 52	October 8, 1987	[52 FR 37617]
Revision	Vol. 54	September 14, 1989	[54 FR 38073]
Revision	Vol. 54	December 15, 1989	[54 FR 51704]
Revision	Vol. 55	March 7, 1990	[55 FR 8341]
Revision	Vol. 55	May 2, 1990	[55 FR 18331]
Revision	Vol. 55	May 31, 1990	[55 FR 22027]
Revision	Vol. 55	August 13, 1990	[55 FR 32914]
Revision	Vol. 57	January 13, 1992	[57 FR 1226]
Revision	Vol. 57	March 5, 1992	[57 FR 8016]

Revision	Vol. 58	January 7, 1993	[58 FR 3105]
Revision	Vol. 58	January 21, 1993	[58 FR 5299]
Revision	Vol. 58	April 7, 1993	[58 FR 18014]
Revision	Vol. 59	March 11, 1994	[59 FR 11554]
Revision	Vol. 59	March 16, 1994	[59 FR 12408]
Revision	Vol. 59	June 17, 1994	[59 FR 31157]
Revision	Vol. 59	July 15, 1994	[59 FR 36280]
Revision	Vol. 60	March 15, 1995	[60 FR 13912]
Revision	Vol. 60	August 21, 1995	[60 FR 43396]
Revision	Vol. 60	September 5, 1995	[60 FR 46206]
Revision	Vol. 60	September 28, 1995	[60 FR 50244]
Revision	Vol. 61	December 30, 1996	[61 FR 68972]
Revision	Vol. 62	January 14, 1997	[62 FR 1832]
Revision	Vol. 62	February 24, 1997	[62 FR 8314]
Revision	Vol. 63	December 1, 1998	[63 FR 66054]
Revision	Vol. 64	February 3, 1999	[64 FR 5574]
Revision	Vol. 64	February 12, 1999	[64 FR 7458]
Revision	Vol. 64	May 6, 1999	[64 FR 24288]
Revision	Vol. 65	February 28, 2000	[65 FR 10391]
Revision	Vol. 65	October 17, 2000	[65 FR 61744]
Revision	Vol. 65	December 14, 2000	[65 FR 78268]
Revision	Vol. 66	June 15, 2001	[66 FR 32545]
Revision	Vol. 66	August 13, 2001	[66 FR 42425, 42427]
Revision	Vol. 66	September 19, 2001	[66 FR 48211]
Revision	Vol. 67	January 23, 2002	[67 FR 3106]
Revision	Vol. 67	March 14, 2002	[67 FR 11417]
Revision	Vol. 67	April 26, 2002	[67 FR 20652]
Revision	Vol. 67	June 10, 2002	[67 FR 39622]
Revision	Vol. 67	September 9, 2002	[67 FR 57159]
Revision	Vol. 67	October 7, 2002	[67 FR 62395]
Revision	Vol. 68	April 7, 2003	[68 FR 16726]
Revision	Vol. 68	May 28, 2003	[68 FR 31611]
Revision	Vol. 68	June 17, 2003	[68 FR 35792]
Revision	Vol. 68	December 11, 2003	[68 FR 69036]
Revision	Vol. 69	March 26, 2004	[69 FR 15687]
Revision	Vol. 69	April 9, 2004	[69 FR 18801]
Revision	Vol. 72	May 16, 2007	[72 FR 27437]
Revision	Vol. 73	April 3, 2008	[73 FR 18162]
Revision	Vol. 73	May 6, 2008	[73 FR 24870]
Revision	Vol. 74	October 27, 2009	[74 FR 55142]
Revision	Vol. 75	September 13, 2010	[75 FR 55636]
Revision	Vol. 79	February 27, 2014	[79 FR 11228]
Revision	Vol. 81	August 30, 2016	[81 FR 59800]

Regulation 61-62.63, National Emission Standards for Hazardous Air Pollutants (NESHAP) for

Source Categories

Regulation 61-62.63, Subpart A, shall be revised as follows:

Subpart A - "General Provisions"

The provisions of 40 Code of Federal Regulations (CFR) Part 63 Subpart A, as originally published in the Federal Register and as subsequently amended upon publication in the Federal Register as listed below, are incorporated by reference as if fully repeated herein.

40 CFR Part 63 Subpart A			
Federal Register Citation	**Volume**	**Date**	**Notice**
Original Promulgation	Vol. 59	March 16, 1994	[59 FR 12430]
Revision	Vol. 59	April 22, 1994	[59 FR 19453]
Revision	Vol. 59	December 6, 1994	[59 FR 62589]
Revision	Vol. 60	January 25, 1995	[60 FR 4963]
Revision	Vol. 60	June 27, 1995	[60 FR 33122]
Revision	Vol. 60	September 1, 1995	[60 FR 45980]
Revision	Vol. 61	May 21, 1996	[61 FR 25399]
Revision	Vol. 61	December 17, 1996	[61 FR 66227]
Revision	Vol. 62	December 10, 1997	[62 FR 65024]
Revision	Vol. 63	May 4, 1998	[63 FR 24444]
Revision	Vol. 63	May 13, 1998	[63 FR 26465]
Revision	Vol. 63	September 21, 1998	[63 FR 50326]
Revision	Vol. 63	October 7, 1998	[63 FR 53996]
Revision	Vol. 63	December 1, 1998	[63 FR 66061]
Revision	Vol. 64	January 28, 1999	[64 FR 4300]
Revision	Vol. 64	February 12, 1999	[64 FR 7468]
Revision	Vol. 64	April 12, 1999	[64 FR 17562]
Revision	Vol. 64	June 10, 1999	[64 FR 31375]
Revision	Vol. 65	October 17, 2000	[65 FR 61744]
Revision	Vol. 67	February 14, 2002	[67 FR 6968]
Revision	Vol. 67	February 27, 2002	[67 FR 9156]
Revision	Vol. 67	April 5, 2002	[67 FR 16582]
Revision	Vol. 67	June 10, 2002	[67 FR 39794]
Revision	Vol. 67	July 23, 2002	[67 FR 48254]
Revision	Vol. 68	February 18, 2003	[68 FR 7706]
Revision	Vol. 68	April 21, 2003	[68 FR 19375]
Revision	Vol. 68	May 6, 2003	[68 FR 23898]
Revision	Vol. 68	May 8, 2003	[68 FR 24653]
Revision	Vol. 68	May 20, 2003	[68 FR 27646]
Revision	Vol. 68	May 23, 2003	[68 FR 28606]
Revision	Vol. 68	May 27, 2003	[68 FR 28774]
Revision	Vol. 68	May 28, 2003	[68 FR 31746]
Revision	Vol. 68	May 29, 2003	[68 FR 32172]
Revision	Vol. 68	May 30, 2003	[68 FR 32586]

Revision	Vol. 68	November 13, 2003	[68 FR 64432]
Revision	Vol. 68	December 19, 2003	[68 FR 70960]
Revision	Vol. 69	January 2, 2004	[69 FR 130]
Revision	Vol. 69	February 3, 2004	[69 FR 5038]
Revision	Vol. 69	April 9, 2004	[69 FR 18801]
Revision	Vol. 69	April 19, 2004	[69 FR 20968]
Revision	Vol. 69	April 22, 2004	[69 FR 21737]
Revision	Vol. 69	April 26, 2004	[69 FR 22602]
Revision	Vol. 69	June 15, 2004	[69 FR 33474]
Revision	Vol. 69	July 30, 2004	[69 FR 45944]
Revision	Vol. 69	September 13, 2004	[69 FR 55218]
Revision	Vol. 70	April 15, 2005	[70 FR 19992]
Revision	Vol. 70	May 20, 2005	[70 FR 29400]
Revision	Vol. 70	October 12, 2005	[70 FR 59402]
Revision	Vol. 71	February 16, 2006	[71 FR 8342]
Revision	Vol. 71	April 20, 2006	[71 FR 20446]
Revision	Vol. 71	July 28, 2006	[71 FR 42898]
Revision	Vol. 71	December 6, 2006	[71 FR 70651]
Revision	Vol. 72	January 3, 2007	[72 FR 26]
Revision	Vol. 72	January 23, 2007	[72 FR 2930]
Revision	Vol. 72	July 16, 2007	[72 FR 38864]
Revision	Vol. 72	October 29, 2007	[72 FR 61060]
Revision	Vol. 72	November 16, 2007	[72 FR 64860]
Revision	Vol. 72	December 26, 2007	[72 FR 73180]
Revision	Vol. 72	December 28, 2007	[72 FR 74088]
Revision	Vol. 73	January 2, 2008	[73 FR 226]
Revision	Vol. 73	January 9, 2008	[73 FR 1738]
Revision	Vol. 73	January 10, 2008	[73 FR 1916]
Revision	Vol. 73	January 18, 2008	[73 FR 3568]
Revision	Vol. 73	February 7, 2008	[73 FR 7210]
Revision	Vol. 73	March 7, 2008	[73 FR 12275]
Revision	Vol. 73	July 23, 2008	[73 FR 42978]
Revision	Vol. 73	December 22, 2008	[73 FR 78199]
Revision	Vol. 74	June 25, 2009	[74 FR 30366]
Revision	Vol. 74	October 28, 2009	[74 FR 55670]
Revision	Vol. 75	September 9, 2010	[75 FR 54970]
Revision	Vol. 75	September 13, 2010	[75 FR 55636]
Revision	Vol. 76	February 17, 2011	[76 FR 9450]
Revision	Vol. 77	February 16, 2012	[77 FR 9304]
Revision	Vol. 77	April 17, 2012	[77 FR 22848]
Revision	Vol. 77	September 11, 2012	[77 FR 55698]
Revision	Vol. 78	January 30, 2013	[78 FR 6674]
Revision	Vol. 78	January 31, 2013	[78 FR 7138]
Revision	Vol. 78	February 1, 2013	[78 FR 7488]
Revision	Vol. 78	June 20, 2013	[78 FR 37133]

Revision	Vol. 79	February 27, 2014	[79 FR 11228]
Revision	Vol. 79	March 27, 2014	[79 FR 17340]
Revision	Vol. 80	June 30, 2015	[80 FR 37365]
Revision	Vol. 80	August 19, 2015	[80 FR 50385]
Revision	Vol. 80	September 18, 2015	[80 FR 56699]
Revision	Vol. 80	October 15, 2015	[80 FR 62389]
Revision	Vol. 80	October 26, 2015	[80 FR 65469]
Revision	Vol. 80	December 1, 2015	[80 FR 75178]
Revision	Vol. 80	December 4, 2015	[80 FR 75817]
Revision	Vol. 81	August 30, 2016	[81 FR 59800]

Regulation 61-62.63, Subpart B, Section 63.44, shall be revised as follows:

Subpart B, Section 63.44 – "Requirements for Constructed or Reconstructed Major Sources Subject to a Subsequently Promulgated MACT Standard or MACT Requirement"

(c) Notwithstanding the requirements of paragraphs (a) and (b) of this section, if the Administrator promulgates an emission standard under Section 112(d) or Section 112(h) of the Act or the Department issues a determination under Section 112(j) of the Act that is applicable to a stationary source or group of sources which was deemed to be a constructed or reconstructed major source under this subpart and which is the subject of a prior case-by-case MACT determination pursuant to Regulation 61-62.63, Section 63.43 of this subpart, and the level of control required by the emission standard issued under Section 112(d) or Section 112(h) or the determination issued under Section 112(j) of the Act is less stringent than the level of control required by any emission limitation or standard in the prior MACT determination, the Department is not required to incorporate any less stringent terms of the promulgated standard in the Part 70 operating permit applicable to such source(s) and may in its discretion consider any more stringent provisions of the prior MACT determination to be applicable legal requirements when issuing or revising such an operating permit.

Regulation 61-62.63, Subpart CC, shall be revised as follows:

Subpart CC - "National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries"

The provisions of 40 CFR Part 63 Subpart CC, as originally published in the Federal Register and as subsequently amended upon publication in the Federal Register as listed below, are incorporated by reference as if fully repeated herein.

40 CFR Part 63 Subpart CC			
Federal Register Citation	**Volume**	**Date**	**Notice**
Original Promulgation	Vol. 60	August 18, 1995	[60 FR 43260]
Revision	Vol. 60	September 27, 1995	[60 FR 49976]
Revision	Vol. 61	February 23, 1996	[61 FR 7051]
Revision	Vol. 61	June 12, 1996	[61 FR 29878]
Revision	Vol. 61	June 28, 1996	[61 FR 33799]
Revision	Vol. 62	February 21, 1997	[62 FR 7938]
Revision	Vol. 63	March 20, 1998	[63 FR 13537]
Revision	Vol. 63	May 18, 1998	[63 FR 27212]

Revision	Vol. 63	June 9, 1998	[63 FR 31361]
Revision	Vol. 63	August 18, 1998	[63 FR 44140]
Revision	Vol. 65	May 8, 2000	[65 FR 26491]
Revision	Vol. 65	July 6, 2000	[65 FR 41594]
Revision	Vol. 66	May 25, 2001	[66 FR 28840]
Revision	Vol. 68	June 23, 2003	[68 FR 37334]
Revision	Vol. 74	October 28, 2009	[74 FR 55670]
Revision	Vol. 75	June 30, 2010	[75 FR 37730]
Revision	Vol. 76	July 18, 2011	[76 FR 42052]
Revision	Vol. 78	June 20, 2013	[78 FR 37133]
Revision	Vol. 80	December 1, 2015	[80 FR 75178]
Revision	Vol. 81	July 13, 2016	[81 FR 45232]

Regulation 61-62.63, Subpart GG, shall be revised as follows:

Subpart GG - "National Emission Standards for Aerospace Manufacturing and Rework Facilities"

The provisions of 40 CFR Part 63 Subpart GG, as originally published in the Federal Register and as subsequently amended upon publication in the Federal Register as listed below, are incorporated by reference as if fully repeated herein.

40 CFR Part 63 Subpart GG			
Federal Register Citation	**Volume**	**Date**	**Notice**
Original Promulgation	Vol. 60	September 1, 1995	[60 FR 45956]
Revision	Vol. 61	February 9, 1996	[61 FR 4903]
Revision	Vol. 61	December 17, 1996	[61 FR 66227]
Revision	Vol. 63	March 27, 1998	[63 FR 15006]
Revision	Vol. 63	September 1, 1998	[63 FR 46526]
Revision	Vol. 65	October 17, 2000	[65 FR 61744]
Revision	Vol. 65	December 8, 2000	[65 FR 76941]
Revision	Vol. 68	June 23, 2003	[68 FR 37334]
Revision	Vol. 71	April 20, 2006	[71 FR 20446]
Revision	Vol. 79	February 27, 2014	[79 FR 11228]
Revision	Vol. 80	December 7, 2015	[80 FR 76151]
Revision	Vol. 81	August 3, 2016	[81 FR 51114]

Regulation 61-62.63, Subpart LLL, shall be revised as follows:

Subpart LLL - "National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry"

The provisions of 40 CFR Part 63 Subpart LLL, as originally published in the Federal Register and as subsequently amended upon publication in the Federal Register as listed below, are incorporated by reference as if fully repeated herein.

40 CFR Part 63 Subpart LLL			
Federal Register Citation	**Volume**	**Date**	**Notice**

Original Promulgation	Vol. 64	June 14, 1999	[64 FR 31898]
Revision	Vol. 64	September 30, 1999	[64 FR 52828]
Revision	Vol. 67	April 5, 2002	[67 FR 16614]
Revision	Vol. 67	December 6, 2002	[67 FR 72580]
Revision	Vol. 68	June 23, 2003	[68 FR 37334]
Revision	Vol. 71	December 20, 2006	[71 FR 76518]
Revision	Vol. 75	September 9, 2010	[75 FR 54970]
Revision	Vol. 76	January 18, 2011	[76 FR 2832]
Revision	Vol. 78	February 12, 2013	[78 FR 10006]
Revision	Vol. 80	July 27, 2015	[80 FR 44771]
Revision	Vol. 80	September 11, 2015	[80 FR 54728]
Revision	Vol. 81	July 25, 2016	[81 FR 48356]

Regulation 61-62.63, Subpart RRR, shall be revised as follows:

Subpart RRR - "National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production"

The provisions of 40 CFR Part 63 Subpart RRR, as originally published in the Federal Register and as subsequently amended upon publication in the Federal Register as listed below, are incorporated by reference as if fully repeated herein.

40 CFR Part 63 Subpart RRR			
Federal Register Citation	**Volume**	**Date**	**Notice**
Original Promulgation	Vol. 65	March 23, 2000	[65 FR 15690]
Revision	Vol. 67	June 14, 2002	[67 FR 41118]
Revision	Vol. 67	August 13, 2002	[67 FR 52616]
Revision	Vol. 67	September 24, 2002	[67 FR 59787]
Revision	Vol. 67	November 8, 2002	[67 FR 68038]
Revision	Vol. 67	December 30, 2002	[67 FR 79808]
Revision	Vol. 68	June 23, 2003	[68 FR 37334]
Revision	Vol. 69	September 3, 2004	[69 FR 53980]
Revision	Vol. 70	October 3, 2005	[70 FR 57513]
Revision	Vol. 70	December 19, 2005	[70 FR 75320]
Revision	Vol. 71	April 20, 2006	[71 FR 20446]
Revision	Vol. 79	February 27, 2014	[79 FR 11228]
Revision	Vol. 80	September 18, 2015	[80 FR 56699]
Revision	Vol. 81	June 13, 2016	[81 FR 38085]

Regulation 61-62.63, Subpart UUU, shall be revised as follows:

Subpart UUU - "National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units"

The provisions of 40 CFR Part 63 Subpart UUU, as originally published in the Federal Register and as subsequently amended upon publication in the Federal Register as listed below, are incorporated by reference as if fully repeated herein.

40 CFR Part 63 Subpart UUU			
Federal Register Citation	**Volume**	**Date**	**Notice**
Original Promulgation	Vol. 67	April 11, 2002	[67 FR 17762]
Revision	Vol. 69	April 9, 2004	[69 FR 18801]
Revision	Vol. 70	February 9, 2005	[70 FR 6930]
Revision	Vol. 71	April 20, 2006	[71 FR 20446]
Revision	Vol. 80	December 1, 2015	[80 FR 75178]
Revision	Vol. 81	July 13, 2016	[81 FR 45232]

Regulation 61-62.63, Subpart UUUUU, shall be revised as follows:

Subpart UUUUU - "National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units"

The provisions of 40 CFR Part 63 Subpart UUUUU, as originally published in the Federal Register and as subsequently amended upon publication in the Federal Register as listed below, are incorporated by reference as if fully repeated herein.

40 CFR Part 63 Subpart UUUUU			
Federal Register Citation	**Volume**	**Date**	**Notice**
Original Promulgation	Vol. 77	February 16, 2012	[77 FR 9304]
Revision	Vol. 77	April 19, 2012	[77 FR 23399]
Revision	Vol. 77	August 2, 2012	[77 FR 45967]
Revision	Vol. 78	April 24, 2013	[78 FR 24073]
Revision	Vol. 79	November 19, 2014	[79 FR 68777, 68795]
Revision	Vol. 80	March 24, 2015	[80 FR 15510]
Revision	Vol. 81	April 6, 2016	[81 FR 20172]

Regulation 61-62.63, Subpart EEEEEE, shall be revised as follows:

Subpart EEEEEE - "National Emission Standards for Hazardous Air Pollutants for Primary Copper Smelting Area Sources"

The provisions of 40 CFR Part 63 Subpart EEEEEE, as originally published in the Federal Register and as subsequently amended upon publication in the Federal Register as listed below, are incorporated by reference as if fully repeated herein.

40 CFR Part 63 Subpart EEEEEE			
Federal Register Citation	**Volume**	**Date**	**Notice**
Original Promulgation	Vol. 72	January 23, 2007	[72 FR 2930]
Revision	Vol. 72	July 3, 2007	[72 FR 36363]

Regulation 61-62.63, Subpart JJJJJJ, shall be revised as follows:

Subpart JJJJJJ - ~~"National Emission Standards for Hazardous Air Pollutants for Area Sources:~~

~~Industrial, Commercial, and Institutional Boilers~~ National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources"

The provisions of 40 CFR Part 63 Subpart JJJJJJ, as originally published in the Federal Register and as subsequently amended upon publication in the Federal Register as listed below, are incorporated by reference as if fully repeated herein.

40 CFR Part 63 Subpart JJJJJJ			
Federal Register Citation	**Volume**	**Date**	**Notice**
Original Promulgation	Vol. 69	September 13, 2004	[69 FR 55217]
Revision	Vol. 70	December 28, 2005	[70 FR 76918]
Revision	Vol. 71	December 6, 2006	[71 FR 70651]
Revision	Vol. 76	March 21, 2011	[76 FR 15554]
Revision	Vol. 76	March 21, 2011	[76 FR 15608]
Revision	Vol. 76	May 18, 2011	[76 FR 28662]
Revision	Vol. 78	January 31, 2013	[78 FR 7138]
Revision	Vol. 78	February 1, 2013	[78 FR 7488]
Revision	Vol. 81	September 14, 2016	[81 FR 63112]

Regulation 61-62.70, Title V Operating Permit Program

Regulation 61-62.70.7 (e)(2)(ii)(C), shall be revised as follows:

(C) Certification by a responsible official, consistent with ~~§~~Section 70.5(d), that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used; and

Regulation 61-62.70.7 (h)(1), shall be revised as follows:

(1) Notice shall be given~~: by publication:~~ by one of the following methods: By publishing the notice in a newspaper of general circulation in the area where the source is located (or in a State publication designed to give general public notice)~~;~~ or by posting the notice, for the duration of the public comment period, on a public website identified by the Department, if the Department has selected website noticing as its "consistent noticing method." The consistent noticing method shall be used for all draft permits subject to notice under this paragraph. If website noticing is selected as the consistent noticing method, the draft permit shall also be posted, for the duration of the public comment period, on a public website identified by the Department. In addition, notice shall be given to persons on a mailing list developed by the Department using generally accepted methods (e.g., hyperlink sign-up function or radio button on an agency website, sign-up sheet at a public hearing, etc.) that enable interested parties to subscribe to the mailing list. The Department may update the mailing list from time to time by requesting written indication of continued interest from those listed. The Department may delete from the list the name of any person who fails to respond to such a request within a reasonable timeframe. The Department may use other means to provide adequate notice to the affected public; ~~to persons on a mailing list developed by the Department, including those who request in writing to be on the list; and by other means if necessary to assure adequate notice to the affected public;~~

Regulation 61-62.70.7 (h)(2), shall be revised as follows:

(2) The notice shall identify the affected facility; the name and address of the permittee; the name

and address of the Department; the activity or activities involved in the permit action; the emissions change involved in any permit modification; the name, address, and telephone number of a person (or an email or website address) from whom interested persons may obtain additional information, including copies of the permit draft, the application, all relevant supporting materials, including any permit application, compliance plan, permit, and monitoring and compliance certification report pursuant to Section 503(e) of the Act, except for information entitled to confidential treatment pursuant to Section 114(c) of the Act (the contents of a Part 70 permit shall not be entitled to protection under Section 114(c) of the Act), and all other materials available to the Department (except for publicly-available materials and publications) that are relevant to the permit decision; a brief description of the comment procedures required by this part; and the time and place of any hearing that may be held, including a statement of procedures to request a hearing (unless a hearing has already been scheduled);

Regulation 61-62.70.9 (b)(2)(ii)(A), shall be revised as follows:

(A) The actual emissions of sources for which no fee is required under §Section 70.9(b)(4);

Regulation 61-62.97, Cross-State Air Pollution Rule (CSAPR) Trading Program

Regulation 61-62.97 shall be added as follows:

SOUTH CAROLINA
DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

AIR POLLUTION CONTROL REGULATIONS AND STANDARDS

REGULATION 61-62.97
CROSS-STATE AIR POLLUTION RULE (CSAPR) TRADING PROGRAM

SUBPART A – SOUTH CAROLINA CSAPR NO_X ANNUAL TRADING PROGRAM

1. Except as provided in paragraphs 2. and 3. of this section, the provisions of [the July 1, 2016 version of] 40 CFR 97.402 through 97.408, 97.411 through 97.418, 97.420 through 97.428, and 97.430 through 97.435 [as amended at 81 FR 74604-07 (October 26, 2016)] are adopted and incorporated by reference.
2. The provisions of 40 CFR 97.411(b)(2) and (c)(5)(iii), 97.412(b), and 97.421(h) and (j) are not adopted or incorporated by reference.
3. For purposes of this section, the provisions of 40 CFR 97.404(a)(1) and (b)(1) that are otherwise adopted and incorporated by reference are modified by removing the phrase "The following units in a State (and Indian country within the borders of such State)" and adding in its place the phrase "The following units in South Carolina (but not in Indian country within South Carolina's borders)".
4. For purposes of this section, for the control periods in 2017 and thereafter, the South Carolina NO_X Annual trading budget, new unit set-aside, and Indian country new unit-set aside for allocations of CSAPR NO_X Annual allowances, and the variability limit for the South Carolina NO_X Annual trading budget, are as follows:
   a. The NO_X Annual trading budget is 32,498 tons.
   b. The new unit set-aside is 617 tons.
   c. The Indian country new unit set-aside is 33 tons.
   d. The variability limit is 5,850 tons.
   e. The South Carolina NO_X Annual trading budget in this section includes any tons in the new unit set-aside or Indian country new unit set-aside but does not include any tons in the variability limit.

SUBPART B – SOUTH CAROLINA CSAPR SO_2 GROUP 2 TRADING PROGRAM

__ 1. Except as provided in paragraphs 2. and 3. of this section, the provisions of [the July 1, 2016 version of] 40 CFR 97.702 through 97.708, 97.711 through 97.718, 97.720 through 97.728, and 97.730 through 97.735 [as amended at 81 FR 74618-21 (October 26, 2016)] are adopted and incorporated by reference.

__ 2. The provisions of 40 CFR 97.711(b)(2) and (c)(5)(iii), 97.712(b), and 97.721(h) and (j) are not adopted or incorporated by reference.

__ 3. For purposes of this section, the provisions of 40 CFR 97.704(a)(1) and (b)(1) that are otherwise adopted and incorporated by reference are modified by removing the phrase "The following units in a State (and Indian country within the borders of such State)" and adding in its place the phrase "The following units in South Carolina (but not in Indian country within South Carolina's borders)".

__ 4. For purposes of this section, for the control periods in 2017 and thereafter, the South Carolina SO_2 Group 2 trading budget, new unit set-aside, and Indian country new unit-set aside for allocations of CSAPR SO_2 Group 2 allowances, and the variability limit for the South Carolina SO_2 Group 2 trading budget, are as follows:

__ __ a. The SO_2 Group 2 trading budget is 96,633 tons.

__ __ b. The new unit set-aside is 1,836 tons.

__ __ c. The Indian country new unit set-aside is 97 tons.

__ __ d. The variability limit is 17,394 tons.

__ __ e. The South Carolina SO_2 Group 2 trading budget in this section includes any tons in the new unit set-aside or Indian country new unit set-aside but does not include any tons in the variability limit.

ATTACHMENT B

24 DRAFTING NOTICES

DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
CHAPTER 61
Statutory Authority: 1976 Code Sections 48-1-10 et seq.

Notice of Drafting:

The Department of Health and Environmental Control (Department) is proposing to amend Regulation 61-62, Air Pollution Control Regulations and Standards, and the South Carolina Air Quality Implementation Plan (State Implementation Plan or SIP). Interested persons are invited to present their views concerning these amendments in writing to Marie F. Brown, Air Regulation and SIP Management Section, Bureau of Air Quality, 2600 Bull Street, Columbia, SC 29201, or via electronic mail at brownmf@dhec.sc.gov. To be considered, the Department must receive comments by 5:00 p.m. on February 27, 2017, the close of the drafting comment period.

Synopsis:

The United States Environmental Protection Agency (EPA) promulgates amendments to the Code of Federal Regulations throughout each calendar year. Recent federal amendments to 40 CFR Parts 50, 51, 52, 60, 61, 63, and 70 include clarification, guidance and technical amendments regarding state implementation plan (SIP) requirements, New Source Performance Standards (NSPS), National Emission Standards for Hazardous Air Pollutants (NESHAP), National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Categories, Prevention of Significant Deterioration (PSD), Nonattainment New Source Review (NSR), the Title V Operating Program, and revisions to testing methods.

The Department proposes to amend: Regulation 61-62.1, Definitions and General Requirements, Regulation 61-62.5, Standard No. 7, Prevention of Significant Deterioration, Regulation 61-62.5, Standard No. 7.1, Nonattainment New Source Review (NSR), Regulation 61-62.60, South Carolina Designated Facility Plan and New Source Performance Standards, Regulation 61-62.61, National Emission Standards for Hazardous Air Pollutants, Regulation 61-62.63, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Categories, and Regulation 61-62.70, Title V Operating Permit Program, to incorporate by reference recent federal amendments promulgated from January 1, 2016, through December 31, 2016.

The Department also proposes to add Regulation 61-62.97, Cross-State Air Pollution Rule (CSAPR) Trading Program, to incorporate the EPA's CSAPR trading program for South Carolina in 40 CFR Part 97 for NO_X (Annual) and SO_2 (Annual), as published in the *Federal Register* on August 8, 2011 (76 FR 48208) and subsequently amended on December 3, 2014 (79 FR 71663), and October 26, 2016 (81 FR 74504). This will address mandatory transport and regional haze SIP infrastructure elements.

The Department may also propose other changes to Regulation 61-62 that may include corrections for internal consistency, clarification, reference, punctuation, codification, formatting, and spelling to improve the overall text of Regulation 61-62 as necessary.

In accordance with 1976 Code Section 1-23-120(H), legislative review is not required because the Department proposes promulgating the amendments to maintain compliance with federal law.

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To: McNeal, Dave[Mcneal.Dave@epa.gov]
Cc: Dubose, Dick[DuBose.Dick@epa.gov]; Russo, Todd[Russo.Todd@epa.gov]; Frizzell, Gretchen[Frizzell.Gretchen@epa.gov]
From: Mitchell, Ken
Sent: Fri 4/7/2017 5:38:19 PM
Subject: FW: Pre-Hearing Submittal for Florida's Proposed 111(d) State Plan for Municipal Solid Waste Landfills
Notice of Hearing FAR 4-7-17.pdf
Pre-Hearing Submittal Letter.pdf
2017-04-07 Pre-Hearing_Cf_111(d) State Plan Submittal Package.pdf

Dave….fyi

Kenneth L. Mitchell, Ph.D. | Special Assistant to the Director |
Air, Pesticides, and Toxics Management Division
U.S. Environmental Protection Agency | 61 Forsyth Street, SW | Atlanta, GA 30303
Voice: 404-562-9065 | Fax: 404-562-9066 | Email: mitchell.ken@epa.gov

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From: Read, Hastings [mailto:Hastings.Read@dep.state.fl.us]
Sent: Friday, April 07, 2017 11:56 AM
To: Spagg, Beverly <Spagg.Beverly@epa.gov>
Cc: Bloeth, Mark <Bloeth.Mark@epa.gov>; Russo, Todd <Russo.Todd@epa.gov>; Dressler, Jason <Dressler.Jason@epa.gov>; Mitchell, Ken <Mitchell.Ken@epa.gov>; McLane, Preston <Preston.McLane@dep.state.fl.us>; Gaskin, Carla <Carla.Gaskin@dep.state.fl.us>
Subject: Pre-Hearing Submittal for Florida's Proposed 111(d) State Plan for Municipal Solid Waste Landfills

Dear Ms. Spagg,

Attached, please find Florida's Pre-Hearing Submittal for Florida's 111(d) State Plan for Municipal Solid Waste Landfills. Also attached is the Cover Letter for the Pre-Hearing Submittal and, pursuant to 40 C.F.R. 60.23, the April 7, 2017 Florida Administrative Register notice for a public hearing, if requested, on the proposed 111(d) State Plan.

If you have any questions or concerns, please let me know. The Department is requesting that EPA provide any comments regarding this submittal to the Department by May 8, 2017.

Thank you,

Hastings Read

Environmental Administrator

Division of Air Resource Management

Florida Department of Environmental Protection

2600 Blair Stone Road, MS 5500

Tallahassee, Florida 32399-2400

Office: (850) 717-9017

Hastings.Read@dep.state.fl.us

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

FLORIDA'S PROPOSED SECTION 111(d)
STATE PLAN SUBMITTAL

MUNICIPAL SOLID WASTE LANDFILLS

PRE-HEARING SUBMITTAL
APRIL 7, 2017

Florida Department of Environmental Protection • Division of Air Resource Management
2600 Blair Stone Road • MS 5500
Tallahassee, Florida 32399-2400

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STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

PRE-HEARING SUBMITTAL: FLORIDA'S PROPOSED SECTION 111(d) STATE PLAN FOR MUNICIPAL SOLID WASTE LANDFILLS

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From:	Long, Terri
To:	Hamilton, Shawn; Strong, Greg; Prather, Jeff; Yeaman, Mary; Smith, Jennifer K.; Iglehart, Jon; "fernandez, Lorenzo"; Melissa Long (melissal@coi.net); "campbell@epchc.org"; "Renee.Parker@ocfl.net"; Laxmana, Tallam@doh.state.fl.us; "John Hickey"; "lee@epchc.org"; "Waters, Jason"; "gonzaj@miamidade.gov"; satyal, AJ
Cc:	Read, Hastings
Subject:	Florida DEP - Notice of Proposed 111(d) Municipal Solid Waste Landfill (MSW) State Plan
Date:	Friday, April 07, 2017 9:05:00 AM
Attachments:	Notice of Hearing FAR 4-7-17.pdf

Notice is hereby given, that pursuant to 40 CFR 60.23, the Department of Environmental Protection (DEP) is accepting comments and will hold a public hearing, if requested, on the Department's proposed 111(d) Municipal Solid Waste Landfill (MSW) State Plan. Please find the attached notice of opportunity to offer comments and request a public hearing, which will be published on April 7, 2017, in the Florida Administrative Register. The public hearing, if requested, will be held May 10, 2017.

The materials comprising the proposed State Plan are posted at http://www.dep.state.fl.us/air/rules/regulatory.htm. Please assist any member of the public who may contact you asking to view these materials. In the event members of the public have substantive questions related to the proposed revision, please direct them to Hastings Read, hastings.read@dep.state.fl.us or (850) 717-9017.

Terri Long
Florida Department of Environmental Protection
Office of Business Planning
Division of Air Resource Management
Terri.long@dep.state.fl.us
(850) 717-9023

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Executive Summary

Florida's Proposed Section 111(d) State Plan Implementing EPA's Emission Guidelines for Municipal Solid Waste Landfills

On August 29, 2016, the U.S. Environmental Protection Agency (EPA) amended the Code of Federal Regulations (C.F.R.), Title 40, Part 60, promulgating Subpart Cf (Emission Guidelines for Existing Sources: Municipal Solid Waste [MSW] Landfills). Developed under Section 111 of the Clean Air Act, these Emission Guidelines apply to existing MSW Landfills that commenced construction or modification on or before July 17, 2014.

Under Section 111(d) of the Clean Air Act, any state with one or more affected MSW units must develop and submit to the EPA a "State Plan" to implement the Emission Guidelines. 40 C.F.R. 60 Subparts B and Cf specify the content and the conditions for developing and adopting a Section 111(d) State Plan.

The Department of Environmental Protection (DEP) has prepared Florida's Section 111(d) State Plan pursuant to Section 111 of the Clean Air Act and in compliance with all of the standards and conditions of 40 C.F.R. Part 60, Subparts B and Cf. The plan, as set forth in this submittal document, consists of an inventory of MSW Landfills and emissions, compliance schedules, and amendments to Chapter 62-204, Florida Administrative Code (F.A.C.) (including emission limitations and testing, monitoring, recordkeeping, and reporting requirements).

In support of DEP's requested approval of this plan, this submittal document also includes a demonstration of legal authority, identification of enforceable mechanisms, and a copy of the notice of opportunity to submit comments and request a public hearing on Florida's revision to its proposed Section 111(d) State Plan.

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Response to 40 C.F.R. Part 60, Subpart B, Criteria

§ 60.23 Adoption and Submittal of State Plans; Public Hearings

(d) Any hearing required by paragraph (c) of this section shall be held only after reasonable notice. Notice shall be given at least 30 days prior to the date of such hearing and shall include:

(1) Notification to the public by prominently advertising the date, time, and place of such hearing in each region affected.

- On April 7, 2017, DEP published, in the Florida Administrative Register (F.A.R.), a notice of opportunity to submit comments and request a public hearing pursuant to 40 C.F.R. 60.23 on Florida's Section 111(d) MSW Landfill State Plan submittal. A public hearing will be held on May 19, 2017, if requested. The "Public Participation" section of this submittal document contains a copy of the notice as it appeared in the F.A.R.

(2) Availability, at the time of public announcement, of each proposed plan or revision thereof for public inspection in at least one location in each region to which it will apply.

- A copy of the April 7, 2017, F.A.R. public notice and Florida's proposed State Plan were posted on DEP's website and made available for public inspection at least 30 days prior to the scheduled hearing date. Notification of the availability of this information was also transmitted to each of DEP's district offices and the offices of each DEP-approved local air pollution control program at least 30 days in advance of the scheduled hearing date. The "Public Participation" section of this submittal contains records of these notifications.

(3) Notification to the Administrator.

- EPA's Region 4 office was notified at least 30 days in advance of the scheduled hearing date and was provided with copies of the material to be considered. The "Public Participation" section of this submittal contains the pre-hearing submittal letter.

(4) Notification to each local air pollution control agency in each region to which the plan or revision will apply.

- Notification to affected local programs occurred together with the notification of availability of information for public inspection. (See response to (d)(2) above.)

(5) In the case of an interstate region, notification to any other State included in the region.

- On April 7, 2017, DEP notified the states of Georgia, Alabama, and Mississippi of Florida's proposed State Plan and of the opportunity to submit comments and request a public hearing at least 30 days in advance of the scheduled hearing date. The "Public Participation" section of this submittal contains records of these notifications.

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§ 60.24 Emission Standards and Compliance Schedules

(a) Each plan shall include emission standards and compliance schedules.

- DEP has adopted by reference all of the emission standards and test methods of 40 C.F.R. Part 60, Subpart Cf, into Rule 62-204.800(9)(h), F.A.C. The rule became effective on January 13, 2017. A certified copy of the full text of the amended rule is included in the "Materials to be Incorporated into State Plan" section of this submittal.

- All of the standards and conditions of 40 C.F.R. Part 60, Subpart Cf, have been adopted by reference into the Florida Administrative Code. As such, the emission limitations and test methods adopted by the State of Florida are at least as protective as the emission guidelines of 40 C.F.R. Part 60, Subpart Cf.

§ 60.25 Emission Inventories, Source Surveillance, Reports

(a) Each plan shall include an inventory of all designated facilities, including emission data for the designated pollutants and information related to emissions as specified in appendix D to this part. Such data shall be summarized in the plan, and emission rates of designated pollutants from designated facilities shall be correlated with applicable emission standards. As used in this subpart, "correlated" means presented in such a manner as to show the relationship between measured or estimated amounts of emissions and the amounts of such emissions allowable under applicable emission standards.

- As required by 40 C.F.R. 60.25(a), this Florida's State Plan includes an inventory of affected landfills and emissions for comparison with federal standards. In the Source and Emission Inventory section of this plan, DEP has provided an inventory of affected MSW landfills and emissions data.

- The monitoring and correlation of compliance data will be conducted according to the conditions of 40 C.F.R. 60.25(b) and (c). DEP will commence annual progress reporting to EPA pursuant to 40 C.F.R. 60.25(e), with the first full year after EPA's approval of Florida's State Plan. The manner and form of reporting will be in accordance with 40 C.F.R. 60.25(f), and will be coordinated with EPA Region 4.

§ 60.26 Legal Authority

(a) Each plan shall show that the State has legal authority to carry out the plan, including authority to:

(1) Adopt emission standards and compliance schedules applicable to designated facilities.

(2) Enforce applicable laws, regulations, standards, and compliance schedules, and seek injunctive relief.

(3) Obtain information necessary to determine whether designated facilities are in compliance with applicable laws, regulations, standards, and compliance schedules,

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including authority to require recordkeeping and to make inspections and conduct tests of designated facilities.

(4) Require owners or operators of designated facilities to install, maintain, and use emission monitoring devices and to make periodic reports to the State on the nature and amounts of emissions from such facilities; also authority for the State to make such data available to the public as reported and as correlated with applicable emission standards.

- DEP has the authority to carry out the conditions set forth in this plan as required by 40 C.F.R. 60.26(a). The laws that provide DEP this authority are located in the Florida Statutes (F.S.) at Sections 403.031 (definitions), 403.061 (Department's powers and duties), and 403.0872 (Title V air operating permits). Subsections 403.061(6), (7), (8), and (13), F.S., give DEP the authority to obtain information and to require recordkeeping, use of monitors, etc. Subsection 403.061(35), F.S., provides DEP the authority to exercise the duties, powers, and responsibilities required of the state under the federal Clean Air Act. The sections of Florida Statutes that give authority for compliance and enforcement are 403.121 (judicial and administrative remedies), 403.131 (injunctive relief), 403.141 (civil remedies), and 403.161 (civil and criminal penalties). Finally, Section 119.07, F.S., provides the authority for making the information available to the public.

- An enforceable mechanism is a legal instrument by which DEP can enforce a set of standards and conditions. DEP has adopted 40 C.F.R. 60, Subpart Cf, into Chapter 62-204, F.A.C., thereby making it an enforceable rule. DEP's mechanism for enforcing the standards and conditions of 40 C.F.R. 60, Subpart Cf, is Rule 62-204.800(9)(h), F.A.C.

- DEP's statutory legal authorities under Chapter 403, F.S, are described in further detail on the following pages.

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Legal Authority

Chapter 403, F.S., entitled "Environmental Control," provides the legal framework for most of the activities of the air resource management program within DEP. Except as provided under Sections 403.8055 and 403.201, F.S., for fast-track rulemaking and the granting of variances under Chapter 403, F.S., respectively, Chapter 120, F.S., Florida's "Administrative Procedure Act," sets forth the procedures DEP must follow for rulemaking, variances, and public meetings. The most recent version of the Florida Statutes can be found online at http://www.leg.state.fl.us/Statutes.

The principal sections of Chapter 403, F.S., that grant DEP authority to operate its air program are listed below. Authority to develop and update Florida's State Implementation Plan (SIP) and 111(d) Designated Facilities Plan is expressly provided by Subsection 403.061(35), F.S., which provides that "the department shall have the power and the duty to control and prohibit pollution of air and water in accordance with the law and rules adopted and promulgated by it and, for this purpose, to … exercise the duties, powers, and responsibilities required of the state under the federal Clean Air Act, 42 U.S.C. ss. 7401 et seq."

403.031 Definitions, including the definition of "regulated air pollutant" (403.031(19)).

403.061 Authority to promulgate plans to provide for air quality control and pollution abatement (403.061(1)); adopt rules for the control of air pollution in the state (403.061(7)); take enforcement action against violators of air pollution laws, rules and permits (403.061(8)); establish and administer an air pollution control program (403.061(9)); set ambient air quality standards (403.061(11)); monitor air quality (403.061(12)); require reports from air pollutant emission sources (403.061(13)); require permits for construction, operation, and modification of air pollutant emission sources (403.061(14)); and exercise the duties, powers, and responsibilities required of the state under the federal Clean Air Act (403.061(35)).

403.087 Authority to issue, deny, modify, and revoke permits.

403.0872 Authority to establish an air operating permit program as required by Title V of the Clean Air Amendments of 1990.

403.0877 Authority to require engineering certification of permit applications.

403.121 Authority to seek judicial and administrative remedies for violations.

403.131 Authority to seek injunctive relief for violations.

403.141 Authority to find civil liability for violations.

403.161 Authority to assess civil and criminal penalties for violations.

403.182 Authority for local pollution control programs.

403.201 Authority to grant variances.

403.716 Authority to require training of medical waste incinerator operators.

403.8052 Authority to establish a Small Business Assistance Program for small-business sources of air pollutant emissions.

403.8055 Authority to adopt EPA standards by reference through a fast-track process.

403.814 Authority to allow use of general permits (permits-by-rule) for minor sources.

Other statutory authorities (outside of Chapter 403, F.S.) for Florida's air resource management program are as follows:

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120.569	Authority of agency head to issue an emergency order in response to an immediate threat to public health, safety, or welfare.
316.2935	Authority to prohibit the sale and operation of motor vehicles whose emission control systems have been tampered with and to prohibit the operation of motor vehicles that emit excessive smoke.
320.03	Authority to establish an Air Pollution Control Trust Fund and use $1 fee on every motor vehicle license registration sold in the state for air pollution control purposes, including support of approved local air pollution control programs.
376.60	Authority to establish a fee for asbestos removal projects.

Rules adopted by DEP under its statutory authority are codified in the Florida Administrative Code. The most recent versions of F.A.C. rules can be found online at https://www.flrules.org. Rule chapters containing SIP or 111(d) State Plan provisions are as follows:

62-204	Air Pollution Control – General Provisions
62-210	Stationary Sources – General Requirements
62-212	Stationary Sources – Preconstruction Review
62-243	Tampering with Motor Vehicle Air Pollution Control Equipment
62-252	Gasoline Vapor Control
62-256	Open Burning
62-296	Stationary Sources – Emission Standards
62-297	Stationary Sources – Emissions Monitoring

Other air-related DEP rule chapters—not part of the SIP or Florida's 111(d) State Plan—include:

62-213	Operation Permits for Major Sources of Air Pollution (Title V)
62-214	Requirements for Sources Subject to the Federal Acid Rain Program
62-257	Asbestos Program

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Materials Proposed to be Incorporated into State Plan

Regulatory Language in Paragraph 62-204.800(9)(h), F.A.C.

Municipal Solid Waste Landfills. 40 C.F.R. Part 60, Subpart Cf, Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills that commenced construction, reconstruction, or modification on or before July 17, 2014, promulgated as of August 29, 2016, at 81 FR 59276 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07805), is hereby adopted and incorporated by reference subject to the following provisions:

1. Designated Facilities. The applicable requirements of paragraph 62-204.800(9)(h), F.A.C., shall apply to all designated facilities as set forth in 40 C.F.R. § 60.31f.
2. Compliance Times. The requirements for planning, awarding of contracts, installing, and starting up of Municipal Solid Waste Landfill air emission collection and control equipment applicable to each designated facility subject to paragraph 62-204.800(9)(h), F.A.C., shall be the same as set forth in 40 C.F.R. § 60.32f.
3. Emission Guidelines for Municipal Solid Waste Landfill Emissions. The emission limitations and operating limits applicable to each Municipal Solid Waste Landfill subject to paragraph 62-204.800(9)(h), F.A.C., shall be the same as set forth in 40 C.F.R. § 60.33f.
4. Operational Standards for Collection and Control Systems. The operational standards for landfill gas collection and control systems used to comply with 40 C.F.R. § 60.33f(b) and (c) at designated facilities subject to paragraph 62-204.800(9)(h), F.A.C., shall be the same as set forth in 40 C.F.R. § 60.34f.
5. Test Methods and Procedures. The test methods and procedures for determining the non-methane organic compunds (NMOC) emission rate or conducting surface emission monitoring demonstration at designated facilities subject to paragraph 62-204.800(9)(h), F.A.C., shall be the same as set forth in 40 C.F.R. § 60.35f.
6. Compliance Provisions. Owners and operators of designated facilities subject to paragraph 62-204.800(9)(h), F.A.C., must demonstrate compliance with the standards of 40 C.F.R. § 60.33f as set forth in 40 C.F.R. § 60.36f.
7. Monitoring of Operations. The monitoring requirements for owners and operators of designated facilities subject to paragraph 62-204.800(9)(h), F.A.C., shall be the same as set forth in 40 C.F.R. § 60.37f.
8. Reporting Guidelines. The reporting requirements for owners and operators of designated facilities subject to paragraph 62-204.800(9)(h), F.A.C., shall be the same as set forth in 40 C.F.R. § 60.38f.
9. Recordkeeping Guidelines. The recordkeeping requirements for owners and operators of designated facilities subject to paragraph 62-204.800(9)(h), F.A.C., shall be the same as set forth in 40 C.F.R. § 60.39f.
10. Specification for Active Collection Systems. The specifications for active collection systems at designated facilities subject to paragraph 62-204.800(9)(h), F.A.C., shall be the same as set forth in 40 C.F.R. § 60.40f.
11. Definitions. The definitions applicable to designated facilities subject to paragraph 62-204.800(9)(h), F.A.C., shall be the same as set forth in 40 C.F.R. §60.41f. For purposes of paragraph 62-204.800(9)(h), F.A.C., the definition of the term administrator means the department. The terms used but not defined in 40 C.F.R. Part 60, Subpart Cf, have the

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meaning given to them in the Clean Air Act and in 40 C.F.R. Part 60, Subparts A, B, and XXX.

12. 40 C.F.R. 60 Subparts WWW and Cc. A designated facility that is in compliance with the provisions of paragraph 62-204.800(9)(h), F.A.C., ensures compliance with paragraph 62-204.800(9)(c), F.A.C. (adopting 40 C.F.R. 60 Subpart Cc by reference), and 40 C.F.R. 60 Subpart WWW, as adopted and incorporated by reference in Rule 62-204.800, F.A.C.

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Municipal Solid Waste Landfills Subject to 40 C.F.R. Part 60, Subpart Cf

Florida AIRS ID	Facility/Operator	County	Design Capacity	Year of Last Construction/ Modification	NMOC Mg/Year	WWW or Cc Applicability
0112370	Southwest Regional Landfill/Broward County Solid Waste and Recycling Services	Broward	**>2.5 Mg**	1988	49.4 Mg in 2015 (via Annual Operating Report)	Subpart Cc with a nonregulatory GCCS
0150075	Zemel Road Solid Waste Management Facility/Charlotte County Department of Public Works	Charlotte	**7.5 Mg**	1991	18.6 Mg in 2016 (via 2015 NMOC report)	Subpart WWW with a nonregulatory GCCS
0170366	Citrus County Central Landfill/Citrus County	Citrus	**> 2.5 Mg**	2005	9.6 Mg projected in 2021	Subpart WWW with a nonregulatory GCCS
0210051	Collier County Landfill/Waste Management Inc. of Florida	Collier	**14.1 Mg**	2003	>50 but controlled	Subpart WWW with a regulatory GCCS
0230048	Winfield Landfill/ Columbia County	Columbia	**>2.5 Mg**	2013	>50 but controlled	Subpart WWW with a regulatory GCCS
0250603	North Dade Landfill/ Miami-Dade Solid Waste Management	Miami-Dade	**12.8 Mg**	Modified after 1991	>50 but controlled	Subpart WWW with a regulatory GCCS
0250615	Medley Landfill/ Waste Management Inc. of Florida	Miami-Dade	**>2.5 Mg**	1993	>50 but controlled	Subpart WWW with a regulatory GCCS
0250623	South Dade Landfill/ Miami-Dade Solid Waste Management	Miami-Dade	**>2.5 Mg**	1999	>50 but controlled	Subpart WWW with a regulatory GCCS
0510030	Lee/Hendry County Regional Solid Waste Landfill/Lee County	Hendry	**>2.5 Mg**	Modified after 1991 & closed in 2010	19.5 Mg in 2016 (via 2016 NMOC report)	Subpart WWW with a nonregulatory GCCS
0530379	Hernando County NW and Recycling Facility Hernando County	Hernando	**>2.5 Mg**	2010	29.2 Mg in 2016 (via 2014 NMOC report)	Subpart WWW with a nonregulatory GCCS
0570854	Hillsborough County SE LF Hillsborough County Solid Waste Management	Hillsborough	**>2.5 Mg**	Modified after 1991	>50 but controlled	Subpart WWW with a regulatory GCCS

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Florida AIRS ID	Facility/Operator	County	Design Capacity	Year of Last Construction/ Modification	NMOC Mg/Year	WWW or Cc Applicability
0610015	Indian River County Landfill/Indian River County	Indian River	**>2.5 Mg**	Modified after 1991	>50 but controlled	Subpart WWW with a regulatory GCCS
0710133	Gulf Coast Sanitary Landfill/Waste Management Inc. of Florida	Lee	**5.7 Mg**	1976/2013 removed GCCS	Closed	Subpart Cc, regulatory GCCS removed
0730099	Leon County Solid Waste Management Facility/Leon County	Leon	**4.7 Mg**	2003 modified	7.4 Mg in 2016 (via 2012 NMOC Report)	Subpart WWW with a nonregulatory GCCS
0810055	Manatee County Lena Road Landfill/ Manatee County Utility Operations Department	Manatee	**>2.5 Mg**	2004 modified	>50 but controlled	Subpart WWW with a regulatory GCCS
0830124	Baseline Landfill/ Marion County	Marion	**7.1 Mg**	2007 modified	>50 but controlled	Subpart WWW with a regulatory GCCS
0850120	Palm City II Sanitary Landfill/Martin County Utilities and Solid Waste Department	Martin	**>2.5 Mg**	1985	>50 but controlled	Subpart Cc with a regulatory GCCS
0890428	West Nassau Class I Landfill/Nassau County	Nassau	**>2.5 Mg**	1993 modified	> 50 but controlled	Subpart WWW with a regulatory GCCS
0990234	Palm Beach Renewable Energy Park/Solid Waste Authority of Palm Beach County	Palm Beach	**>2.5 Mg**	1994 modified	>50 but controlled	Subpart WWW with a regulatory GCCS
1010056	Pasco County Resource Recovery Facility/Pasco County	Pasco	**14 million m^3**	1987	< 1.0 in 2010 (via 2010 NMOC Report)	Subpart Cc with no GCCS (landfills ash and a small amount of MSW)
1030117	Pinellas County Resource Recovery Facility/Pinellas County Utilities Administration	Pinellas	**47 Mg**	Pre-1991	0.7 Mg in 2014 (via 2015 NMOC Report)	Subpart Cc with no GCCS (landfills ash from the onsite combustors)
1050439	Cedar Trail Landfill/ Republic Services of Florida, Ltd	Polk	**10 Mg**	Modified in 2011	46.7 Mg in 2017 (via 2012 NMOC Report)	Subpart WWW with a nonregulatory GCCS

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Florida AIRS ID	Facility/Operator	County	Design Capacity	Year of Last Construction/ Modification	NMOC Mg/Year	WWW or Cc Applicability
1110081	St. Lucie County Baling and Recycling Facility/St. Lucie County Solid Waste Department	St. Lucie	**>2.5 Mg**	Post 1991	>50 but controlled	Subpart WWW with a regulatory GCCS
1150089	Central County Solid Waste Disposal Facility/Sarasota County	Sarasota	**7 Mg**	1998	>50 but controlled	Subpart WWW with a regulatory GCCS
1170084	Osceola Road Landfill/Seminole County	Seminole	**>2.5 Mg**	Modified after 1991	>50 but controlled	Subpart WWW with a regulatory GCCS
1190053	A.C.M.S. Class I Landfill/A.C.M.S. Inc.	Sumter	**4.6 Mg**	2012	2.8 Mg in 2016 (via 2016 NMOC Report)	Subpart WWW with no GCCS installed
0630045	Springhill Regional Landfill/Waste Management of Leon County, Inc.	Jackson	**>2.5 Mg**	Modified in 1999	>50 but controlled	Subpart WWW with a regulatory GCCS
0112094	Monarch Hill Landfill/ Waste Management Inc. of Florida	Broward	**>2.5 Mg**	Modified after 1991	>50 but controlled	Subpart WWW with a regulatory GCCS

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State Administrative Materials - Chapter 62-204.800, F.A.C. (Fast-Track Adoption)

Notice of Proposed Rule (December 6, 2016)

DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

Board of Professional Engineers

RULE NO.: RULE TITLE:
61G15-18.011 Definitions

PURPOSE AND EFFECT: The purpose of the amendment is to incorporate the Florida Fire Prevention Code into the Board's rules by reference.

SUMMARY: To incorporate the Florida Fire Prevention Code.

SUMMARY OF STATEMENT OF ESTIMATED REGULATORY COSTS AND LEGISLATIVE RATIFICATION:

The Agency has determined that this will not have an adverse impact on small business or likely increase directly or indirectly regulatory costs in excess of $200,000 in the aggregate within one year after the implementation of the rule. A SERC has not been prepared by the Agency.

The Agency has determined that the proposed rule is not expected to require legislative ratification based on the statement of estimated regulatory costs or if no SERC is required, the information expressly relied upon and described herein: During discussion of the economic impact of this rule at its Board meeting, the Board, based upon the expertise and experience of its members, determined that a Statement of Estimated Regulatory Costs (SERC) was not necessary and that the rule will not require ratification by the Legislature. No person or interested party submitted additional information regarding the economic impact at that time.

Any person who wishes to provide information regarding a statement of estimated regulatory costs, or provide a proposal for a lower cost regulatory alternative must do so in writing within 21 days of this notice.

RULEMAKING AUTHORITY: 471.008. 471.033(2) FS

LAW IMPLEMENTED: 471.015(7), 471.033 FS

IF REQUESTED WITHIN 21 DAYS OF THE DATE OF THIS NOTICE, A HEARING WILL BE SCHEDULED AND ANNOUNCED IN THE FAR.

THE PERSON TO BE CONTACTED REGARDING THE PROPOSED RULE IS: Zana Raybon, Executive Director, Board of Professional Engineers, 2639 North Monroe Street, Suite B-112, Tallahassee, FL 32303; (850)521-0500

THE FULL TEXT OF THE PROPOSED RULE IS:

61G15-18.011 Definitions.

As used in Chapter 471, F.S., and in these rules where the context will permit the following terms have the following meanings:

(1) through (6) No change.

(7) The term "Florida Fire Prevention Code" shall mean the Florida Fire Prevention Code, 5th Edition, (2015), and which is incorporated herein by reference. The material incorporated is copyrighted material that is available for public inspection and examination, but may not be copied, at the Department of State, Administrative Code and Register Section, Room 701, The Capitol, Tallahassee, Florida 32399-0250, and at the Board office, 2639 North Monroe Street, Suite B-112, Tallahassee, FL 32303.

Rulemaking Authority 471.008, 471.013(1)(a)1., 2. FS. Law Implemented 471.003(2)(f), 471.005(7), 471.005(6), 471.013(1)(a)1., 2., 471.023(1), 471.025(3), 471.033(1)(j) FS. History–New 6-23-80, Amended 12-19-82, 11-22-83, Formerly 21H-18.11, Amended 1-16-91, 4-4-93, Formerly 21H-18.011, Amended 12-22-99, 4-19-01, 10-16-02, 9-15-04, 6-5-08, 6-2-09, 2-2-12, 6-12-16,_____.

NAME OF PERSON ORIGINATING PROPOSED RULE: Board of Professional Engineers

NAME OF AGENCY HEAD WHO APPROVED THE PROPOSED RULE: Board of Professional Engineers

DATE PROPOSED RULE APPROVED BY AGENCY HEAD: August 17, 2016

DATE NOTICE OF PROPOSED RULE DEVELOPMENT PUBLISHED IN FAR: November 18, 2016

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Division of Air Resource Management

RULE NO.: RULE TITLE:
62-204.800 Federal Regulations Adopted by Reference

PURPOSE, EFFECT AND SUMMARY: The proposed rule amendments update the Department's adoption by reference of air pollution regulations promulgated by the U.S. Environmental Protection Agency (EPA) at 40 C.F.R. Parts 51, 52, 58, 60, 61, 63, 70, and 81, to incorporate requirements of the Department's federally approved and delegated air pollution programs. These rule amendments include the adoption by reference of the Emission Guidelines for existing Municipal Solid Waste Landfills (codified at 40 C.F.R. 60 Subpart Cf).

RULEMAKING AUTHORITY: 403.8055, F.S.

LAW IMPLEMENTED: 403.061, 403.087, 403.8055, F.S.

THIS RULEMAKING IS UNDERTAKEN PURSUANT TO SECTION 403.8055, F.S. WRITTEN COMMENTS MAY BE SUBMITTED WITHIN 21 DAYS OF THE DATE OF THIS NOTICE TO: Terri Long, Division of Air Resource Management, 2600 Blair Stone Road, MS 5500, Tallahassee, Florida 32399-2400, or Terri.Long@dep.state.fl.us.

SUBSTANTIALLY AFFECTED PERSONS MAY WITHIN 14 DAYS OF THE DATE OF THIS NOTICE, FILE AN OBJECTION TO THIS RULEMAKING WITH THE ENVIRONMENTAL REGULATION COMMISSION, ADMINISTRATIVE ASSISTANT, DEP, MS 35, 3900 COMMONWEALTH BOULEVARD, TALLAHASSEE,

2008, at 73 FR 53378; amended June 1, 2009, at 74 FR 26103; amended May 27, 2010, at 75 FR 29671 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720); amended April 12, 2011, at 76 FR 20239 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720); amended June 15, 2012, at 77 FR 35862 (http://www.flrules.org/Gateway/reference.asp?No=Ref-02487); amended July 30, 2012, at 77 FR 44485 (http://www.flrules.org/Gateway/reference.asp?No=Ref-02487); amended September 19, 2012, at 77 FR 58027 (http://www.flrules.org/Gateway/reference.asp?No=Ref-02487); amended October 11, 2012, at 77 FR 61724 (http://www.flrules.org/Gateway/reference.asp?No=Ref-02487); amended November 8, 2012, at 77 FR 66927 (http://www.flrules.org/Gateway/reference.asp?No=Ref-02487); amended November 27, 2012, at 77 FR 70687 (http://www.flrules.org/Gateway/reference.asp?No=Ref-02487); amended November 29, 2012, at 77 FR 71111 (http://www.flrules.org/Gateway/reference.asp?No=Ref-02487); amended April 3, 2013, at 78 FR 19998 (http://www.flrules.org/Gateway/reference.asp?No=Ref-04913); amended June 20, 2013, at 78 FR 37132 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04930); amended August 29, 2013, at 78 FR 53250 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04921); amended November 1, 2013, at 78 FR 65559 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04935); amended November 18, 2013, at 78 FR 68997 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04936); amended December 2, 2013, at 78 FR 72033 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04922); amended January 6, 2014, at 79 FR 573 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04928); amended May 19, 2014, at 79 FR 28607 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04933); amended May 27, 2014, at FR 79 30045 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04934); amended August 25, 2014, at 79 FR 50554 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04919); amended October 16, 2014, at 79 FR 62006 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04938); amended March 18, 2015, at 80 FR 14019 (https://www.flrules.org/Gateway/reference.asp?No=Ref-06251); amended April 16, 2015, at 80 FR 20441 (https://www.flrules.org/Gateway/reference.asp?No=Ref-06252); amended August 12, 2015, at 80 FR 48259 (https://www.flrules.org/Gateway/reference.asp?No=Ref-06253); amended September 24, 2015, at 80 FR 57538 (link); amended September 25, 2015, at 80 FR 57727 (link); amended October 23, 2015, at 80 FR 64344 (link); amended August 2, 2016, at 81 FR 50628 (link); amended September 30, 2016, at 81 FR 67179 (link).

(4) through (5) No change.

(6) Title 40, Code of Federal Regulations, Part 58, Ambient Air Quality Surveillance.

(a) The following subparts of 40 C.F.R. Part 58, revised as of July 1, 2006, or later as specifically indicated, are adopted and incorporated by reference:

1. 40 C.F.R. Part 58, Subpart A, General Provisions; amended October 17, 2006, at 71 FR 61235; amended February 9, 2010, at 75 FR 6473; amended January 15, 2013, at 78 FR 3085 (https://www.flrules.org/Gateway/reference.asp?No=Ref-03487); amended March 28, 2016, at 81 FR 17248 (link).

2. 40 C.F.R. Part 58, Subpart B, Monitoring Network, amended October 17, 2006, at 71 FR 61235; amended June 12, 2007, at 72 FR 32193; amended November 12, 2008, at 73 FR 66963; amended February 9, 2010, at 75 FR 6473; amended June 22, 2010, at 75 FR 35520 (http://www.flrules.org/Gateway/reference.asp?No=Ref-00744); amended December 27, 2010, at 75 FR 81126 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720); amended August 31, 2011, at 76 FR 54293 (http://www.flrules.org/Gateway/reference.asp?No=Ref-02487); amended January 15, 2013, at 78 FR 3085 (https://www.flrules.org/Gateway/reference.asp?No=Ref-03487), amended March 14, 2013, at 78 FR 16184 (https://www.flrules.org/Gateway/reference.asp?No=Ref-03491); amended March 28, 2016, at 81 FR 17248 (link).

3. through 6. No change.

(b) The following appendices of 40 C.F.R. Part 58, revised as of July 1, 2006, or later as specifically indicated, are adopted and incorporated by reference:

1. 40 C.F.R. Part 58, Appendix A, Quality Assurance Requirements for SLAMS, SPMs and PSD Air Monitoring; amended October 17, 2006, at 71 FR 61235; amended June 12, 2007, at 72 FR 32193; amended November 12, 2008, at 73 FR 66963; amended February 9, 2010, at 75 FR 6473; amended June 22, 2010, at 75 FR 35520 (http://www.flrules.org/Gateway/reference.asp?No=Ref-00744); amended December 27, 2010, at 75 FR 81126 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720); amended January 15, 2013, at 78 FR 3085 (https://www.flrules.org/Gateway/reference.asp?No=Ref-03487); amended March 28, 2016, at 81 FR 17248 (link).

2. No change.

3. 40 C.F.R. 58, Appendix D, Network Design Criteria for Ambient Air Quality Monitoring; amended October 17, 2006, at 71 FR 61235; amended June 12, 2007, at 72 FR 32193; amended November 12, 2008, at 73 FR 66963; amended February 9, 2010, at 75 FR 6473; amended June 22, 2010, at 75 FR 35520

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FLORIDA 32399-3000. THE OBJECTION SHALL SPECIFY THE PORTIONS OF THE PROPOSED RULE TO WHICH THE PERSON OBJECTS AND THE SPECIFIC REASONS FOR THE OBJECTION.

62-204.800 Federal Regulations Adopted by Reference.

All federal regulations cited throughout the air pollution rules of the Department are adopted and incorporated by reference in this rule. The purpose and effect of each such federal regulation is determined by the context in which it is cited. Procedural and substantive requirements in the incorporated federal regulations are binding as a matter of state law only where the context so provides.

(1) No change.

(2) Title 40, Code of Federal Regulations, Part 51, Requirements for Preparation, Adoption, and Submittal of Implementation Plans.

(a) The following subparts of 40 C.F.R. Part 51, revised as of July 1, 2006, or later as specifically indicated, are adopted and incorporated by reference:

1. 40 C.F.R. Part 51, Subpart F, Procedural Requirements; amended January 18, 2007, at 72 FR 2193, amended July 16, 2007, at 72 FR 38787; amended March 24, 2008, at 73 FR 15603; amended January 21, 2009, at 74 FR 3437; amended June 23, 2009, at 74 FR 29595; amended June 22, 2012, at 77 FR 37610 (http://www.flrules.org/Gateway/reference.asp?No=Ref-02487); amended February 12, 2013, at 78 FR 9823 (https://www.flrules.org/Gateway/reference.asp?No=Ref-03490); amended August 28, 2013, at 78 FR 53029 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04920); amended October 22, 2013, at 78 FR 62451 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04939); amended March 27, 2014, at 79 FR 17037 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04931); amended February 25, 2016, at 81 FR 9339 (link); amended August 1, 2016, at 81 FR 50330 (link).

2. 40 C.F.R. Part 51, Subpart I, Review of New Sources and Modifications; amended May 16, 2008, at 73 FR 28321 (https://www.flrules.org/Gateway/reference.asp?No=Ref-03485); amended October 20, 2010, at 75 FR 64864 (http://www.flrules.org/Gateway/reference.asp?No=Ref-00745); amended June 3, 2010, at 75 FR 31513 (https://www.flrules.org/Gateway/reference.asp?No=Ref-03488); amended January 15, 2013, at 78 FR 3085 (https://www.flrules.org/Gateway/reference.asp?No=Ref-03487), amended August 19, 2015, at 80 FR 50199 (https://www.flrules.org/Gateway/reference.asp?No=Ref-06250); amended June 3, 2016, at 81 FR 35622 (link).

3. through 5. No change.

(b) The following appendices of 40 C.F.R. Part 51, revised as of July 1, 2006, or later as specifically indicated, are adopted and incorporated by reference:

1. 40 C.F.R. Part 51, Appendix M, Recommended Test Methods for State Implementation Plans; amended September 21, 2006, at 71 FR 55119; amended May 29, 2008, at 73 FR 30775; amended December 21, 2010, at 75 FR 80118 (http://www.flrules.org/Gateway/reference.asp?No=Ref-00746); amended September 13, 2010, at 75 FR 55636 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720); amended February 27, 2014, 79 FR 11227 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04926) amended August 30, 2016, at 81 FR 59800 (link).

2. 40 C.F.R. Part 51, Appendix P, Minimum Emission Monitoring Requirements; amended August 30, 2016, at 81 FR 59800 (link).

3. through 4. No change.

(3) Title 40, Code of Federal Regulations, Part 52, Approval and Promulgation of Implementation Plans. The following subparts of 40 C.F.R. Part 52, revised as of July 1, 2003, or later as specifically indicated, are adopted and incorporated by reference:

(a) 40 C.F.R. Part 52, Subpart A, General Provisions; revised as of July 1, 2011 (https://www.flrules.org/Gateway/reference.asp?No=Ref-03499), or later as specifically indicated, except for the provisions of 40 C.F.R. §52.21(b)(49)(v), are adopted and incorporated by reference; amended July 12, 2012, at 77 FR 41051 (https://www.flrules.org/Gateway/reference.asp?No=Ref-03489); amended October 25, 2012, at 77 FR 65107 (https://www.flrules.org/Gateway/reference.asp?No=Ref-03486); amended January 15, 2013, at 78 FR 3085 (https://www.flrules.org/Gateway/reference.asp?No=Ref-03487); amended May 19, 2014, at 79 FR 28607 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04933); amended May 7, 2015, at 80 FR 26183 (https://www.flrules.org/Gateway/reference.asp?No=Ref-06254); amended June 12, 2015, at 80 FR 33413 (https://www.flrules.org/Gateway/reference.asp?No=Ref-06255); amended March 6, 2015, at FR 80 12263 (https://www.flrules.org/Gateway/reference.asp?No=Ref-06249); amended August 19, 2015, at 80 FR 50199 (https://www.flrules.org/Gateway/reference.asp?No=Ref-06250); amended June 3, 2016, at 81 FR 35622 (link).

(b) 40 C.F.R. Part 52, Subpart K, Florida, amended July 22, 2003, at 68 FR 43312; amended August 11, 2003, at 68 FR 47468; amended February 13, 2004, at 69 FR 7127; amended March 29, 2004, at 69 FR 16167; amended June 17, 2004, at 69 FR 33860; amended April 28, 2006, at 71 FR 25327; amended November 28, 2006, at 71 FR 68743; amended October 12, 2007, at 72 FR 58016; amended September 16,

87. 40 C.F.R. Part 60, Subpart TTTT, Standards of Performance for Greenhouse Gas Emissions for Electric Generating Units, promulgated October 23, 2015, at 80 FR 64510 (link).

(c) No change.

(d) General Provisions Adopted. The general provisions of 40 C.F.R. Part 60, Subpart A, revised as of July 1, 2009; amended October 6, 2009, at 74 FR 51368; amended September 13, 2010, at 75 FR 55636 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720), amended March 21, 2011, at 76 FR 15554 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04940); amended January 18, 2012, at 77 FR 2456 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720); amended April 19, 2012, at 77 FR 23396 (http://www.flrules.org/Gateway/reference.asp?No=Ref-02487); amended August 16, 2012, at 77 FR 49489 (http://www.flrules.org/Gateway/reference.asp?No=Ref-02487); amended September 12, 2012, at 77 FR 56421 (http://www.flrules.org/Gateway/reference.asp?No=Ref-02487); amended January 30, 2013, at 78 FR 6673 (https://www.flrules.org/Gateway/reference.asp?No=Ref-03483); amended February 27, 2014, 79 FR 11227 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04926); amended October 23, 2015, at 80 FR 64510 (link); amended June 3, 2016, at 81 FR 35824 (link); amended August 29, 2016, at 81 FR 59276 (link); amended August 29, 2016, at 81 FR 59332 (link); amended August 30, 2016, at 81 FR 59800 (link); are adopted and incorporated by reference except that the Secretary is not the Administrator for purposes of 40 C.F.R. § 60.4, 40 C.F.R. § 60.8(b)(2) and (3), 40 C.F.R. § 60.11(e)(7) and (8), 40 C.F.R. § 60.13(g), (i) and (j)(2), and 40 C.F.R. § 60.16.

(e) Appendices Adopted. The following appendices of 40 C.F.R. Part 60, revised as of July 1, 2009, or later as specifically indicated, are adopted and incorporated by reference:

1. 40 C.F.R. Part 60, Appendix A-1, Test Methods 1 through 2F; amended February 27, 2014, 79 FR 11227 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04926); amended August 30, 2016, at 81 FR 59800 (link).

2. 40 C.F.R. Part 60, Appendix A-2, Test Methods 2G through 3C; amended February 27, 2014, 79 FR 11227 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04926); amended August 30, 2016, at 81 FR 59800 (link).

3. 40 C.F.R. Part 60, Appendix A-3, Test Methods 4 through 5I; amended September 13, 2010, at 75 FR 55636 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720); amended February 27, 2014, at 79 FR 11227 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04926); amended August 30, 2016, at 81 FR 59800 (link).

4. 40 C.F.R. Part 60, Appendix A-4, Test Methods 6 through 10B; amended September 13, 2010, at 75 FR 55636 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720); amended February 27, 2014, 79 FR 11227 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04926); amended August 30, 2016, at 81 FR 59800 (link).

5. 40 C.F.R. Part 60, Appendix A-5, Test Methods 11 through 15A; amended September 13, 2010, at 75 FR 55636 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720); amended February 27, 2014, 79 FR 11227 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04926); amended August 30, 2016, at 81 FR 59800 (link).

6. 40 C.F.R. Part 60, Appendix A-6, Test Methods 16 through 18; amended September 13, 2010, at 75 FR 55636 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720); amended July 30, 2012, at FR 44488 (http://www.flrules.org/Gateway/reference.asp?No=Ref-02487); amended February 27, 2014, 79 FR 11227 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04926); amended August 30, 2016, at 81 FR 59800 (link).

7. 40 C.F.R. Part 60, Appendix A-7, Test Methods 19 through 25E; amended September 13, 2010, at 75 FR 55636 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720), amended January 18, 2012, at 77 FR 2456 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720); amended February 27, 2014, 79 FR 11227 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04926); amended August 30, 2016, at 81 FR 59800 (link); except that in Method 23, the toluene rinse concentrate may be added to the acetone and methylene chloride concentrate, the filter, and the resin in the Soxhlet apparatus specified at section 5.1.4 of the method prior to analysis, in lieu of separate analysis of the toluene rinse extract pursuant to section 5.1.6 of the method.

8. 40 C.F.R. Part 60, Appendix A-8, Test Methods 26 through 30B; amended September 13, 2010, at 75 FR 55636 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720); amended February 27, 2014, 79 FR 11227 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04926); amended August 30, 2016, at 81 FR 59800 (link).

9. 40 C.F.R. Part 60, Appendix B, Performance Specifications; amended February 27, 2014, at 79 FR 11227 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04926); amended July 7, 2015, at 80 FR 38628 (link); amended July 17, 2015, at 80 FR 42397 (link); amended August 30, 2016, at 81 FR 59800 (link).

10. through 11. No change.

12. 40 C.F.R. Part 60, Appendix F, Quality Assurance Procedures; amended February 27, 2014, 79 FR 11227 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04926); amended May 16, 2014, at 79 FR 28439 (link)

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(http://www.flrules.org/Gateway/reference.asp?No=Ref-00744); amended December 27, 2010, at 75 FR 81126 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720); amended January 15, 2013, at 78 FR 3085 (https://www.flrules.org/Gateway/reference.asp?No=Ref-03487); amended March 28, 2016, at 81 FR 17248 (link).

4. through 5. No change.

(7) No change.

(8) Title 40, Code of Federal Regulations, Part 60, Standards of Performance for New Stationary Sources.

(a) No change.

(b) Standards Adopted. The following Standards of Performance for New Stationary Sources contained in 40 C.F.R. Part 60, revised as of July 1, 2009, or later as specifically indicated, are adopted and incorporated by reference:

1. No change.

2. 40 C.F.R. Part 60, Subpart Da, Electric Utility Steam Generators for Which Construction is Commenced After September 18, 1978; amended January 20, 2011, at 76 FR 3517 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720); amended April 19, 2012, at 77 FR 23399 (http://www.flrules.org/Gateway/reference.asp?No=Ref-02487); amended February 16, 2012, at 77 FR 9303 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04925); amended April 24, 2013, 78 FR 24073 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04917); amended November 19, 2014, at 79 FR 68777 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04937); amended April 6, 2016, at 81 FR 20172 (link); except that the Secretary is not the Administrator for purposes of 40 C.F.R. § 60.47Da.

3. through 13. No change.

14. 40 C.F.R. Part 60, Subpart J, Petroleum Refineries; amended September 12, 2012, at 77 FR 56421 (http://www.flrules.org/Gateway/reference.asp?No=Ref-02487); amended December 1, 2015, at 80 FR 75178 (link); except that the Secretary is not the Administrator for purposes of the authorities cited at 40 C.F.R. §60.109(b).

15. 40 C.F.R. Part 60, Subpart Ja, Standards of Performance for Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007; amended February 25, 2011, at 76 FR 10524 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720); amended December 19, 2013, at 78 FR 76753 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04923); amended December 1, 2015, at 80 FR 75178 (link); amended July 13, 2016, at 81 FR 45232 (link); except that the Secretary is not the Administrator for purposes of the authorities cited at 40 C.F.R. § 60.109a(b).

16. through 76. No change.

77. 40 CFR Part 60, Subpart XXX, Municipal Solid Waste Landfills, promulgated August 29, 2016, at 81 FR 59332 (link).

77. renumbered 78. No change.

79 ~~78.~~ 40 C.F.R. Part 60, Subpart CCCC, Commercial and Industrial Solid Waste Incineration Units; amended February 7, 2013, at 78 FR 9111 (https://www.flrules.org/Gateway/reference.asp?No=Ref-03492); amended June 23, 2016, at 81 FR 40956 (link). Any CISWI unit subject to the permitting requirements of Chapter 62-213, F.A.C., solely because it is subject to 40 C.F.R. 60, Subpart CCCC, shall file an application for an operation permit under the requirements of Chapter 62-213, F.A.C., in accordance with paragraph 62-213.420(1)(a), F.A.C.

79. renumbered 80. No change.

81 ~~80.~~ 40 C.F.R. Part 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines; amended June 28, 2011, at 76 FR 37954 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720); amended January 30, 2013, at 78 FR 6673 (https://www.flrules.org/Gateway/reference.asp?No=Ref-03483); amended February 27, 2014, 79 FR 11227 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04926); amended July 7, 2016, at 81 FR 44212 (link); except that the Secretary is not the Administrator for purposes of 40 C.F.R. § 60.4201, 60.4202, 60.4203, 60.4210 and 60.4215 and 60.4216.

82 ~~81.~~ 40 C.F.R. Part 60, Subpart JJJJ, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines; amended June 28, 2011, at 76 FR 37954 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720); amended January 30, 2013, at 78 FR 6673 (https://www.flrules.org/Gateway/reference.asp?No=Ref-03483); amended February 27, 2014, 79 FR 11227 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04926); amended August 30, 2016, at 81 FR 59800 (link); except that the Secretary is not the Administrator for purposes of 40 C.F.R. § 60.4231, 60.4232, 60.4238, 60.4239, 60.4240, 60.4241, 60.4242, and 60.4247.

82. through 83. renumbered 83. Through 84. No change.

85 ~~84.~~ 40 C.F.R. Part 60, Subpart OOOO, Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution, promulgated August 16, 2012, at 77 FR 49489 (http://www.flrules.org/Gateway/reference.asp?No=Ref-02487); amended June 3, 2016, at 81 FR 35824 (link).

86. 40 C.F.R. Part 60, Subpart OOOOa, Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources, promulgated June 3, 2016, at 81 FR 35824 (link).

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2010, at 75 FR 55636 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720); amended February 27, 2014, 79 FR 11227 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04926); amended August 30, 2016, at 81 FR 59800 (link).

3. No change.

(11) Title 40, Code of Federal Regulations, Part 63, National Emission Standards for Hazardous Air Pollutants for Source Categories.

(a) No change.

(b) Standards Adopted. The following National Emission Standards for Hazardous Air Pollutants contained in 40 C.F.R. Part 63, revised as of July 1, 2009, or later as specifically indicated, are adopted and incorporated by reference:

1. through 16. No change.

17. 40 C.F.R. Part 63, Subpart Y, Marine Tank Vessel Loading Operations; amended April 21, 2011, at 76 FR 22566 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720); amended February 27, 2014, 79 FR 11227 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04926); amended December 1, 2015, at 80 FR 75178 (link); except that the Secretary is not the Administrator for purposes of the authorities cited at 40 C.F.R. §§ 63.568(c)(1) through (4).

18. through 19. No change.

20. 40 C.F.R. Part 63, Subpart CC, Petroleum Refineries; amended June 30, 2010, at 75 FR 37730 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720); amended June 20, 2013, at 78 FR 37133 (https://www.flrules.org/Gateway/reference.asp?No=Ref-03498); amended December 1, 2015, at 80 FR 75178 (link); amended July 13, 2016, at 81 FR 45232 (link); except that the Secretary is not the Administrator for purposes of the authorities cited at 40 C.F.R. §§ 63.655(c)(1) through (4).

21. through 22. No change.

23. 40 C.F.R. Part 63, Subpart GG, Aerospace Manufacturing and Rework Facilities; amended February 27, 2014, 79 FR 11227 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04926); amended December 7, 2015, at 80 FR 76152 (link); amended August 3, 2016, at 81 FR 51114 (link); except that the Secretary is not the Administrator for purposes of the authorities cited at 40 C.F.R. §§ 63.759(c)(1) through (4).

24. through 41. No change.

42. 40 C.F.R. Part 63, Subpart DDD, Mineral Wool Production; amended July 29, 2015, at 80 FR 45280 (link); except that the Secretary is not the Administrator for purposes of the authorities cited at 40 C.F.R. §§ 63.1195(c)(1) through (4).

43. through 47. No change.

48. 40 C.F.R. Part 63, Subpart LLL, Portland Cement Manufacturing Industry; amended February 12, 2013, at 78 FR 10005 (https://www.flrules.org/Gateway/reference.asp?No=Ref-03494); amended July 27, 2015, at 80 FR 44771 (https://www.flrules.org/Gateway/reference.asp?No=Ref-06257); amended September 11, 2015, at 80 FR 54728 (link); amended July 25, 2016, at 81 FR 48356 (link); except that the Secretary is not the Administrator for purposes of the authorities cited at 40 C.F.R. §§ 63.1358(c)(1) through (4). If a facility becomes subject to the permitting requirements of Chapter 62-213, F.A.C., solely because it is subject to the emission limiting requirements of 40 C.F.R. Part 63, Subpart LLL, the facility shall submit an application for such permit no later than October 1, 2000.

49. No change.

50. 40 C.F.R. Part 63, Subpart NNN, Wool Fiberglass Manufacturing; amended July 29, 2015, at 80 FR 45280 (link); except that the Secretary is not the Administrator for purposes of the authorities cited at 40 C.F.R. §§ 63.1388(c)(1) through (4).

51. through 53. No change.

54. 40 C.F.R. Part 63, Subpart RRR, Secondary Aluminum Production; amended February 27, 2014, 79 FR 11227 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04926); amended June 13, 2016, at 81 FR 38085 (link); except that the Secretary is not the Administrator for purposes of the authorities cited at 40 C.F.R. §§ 63.1519(c)(1) through (4).

55. No change.

56. 40 C.F.R. Part 63, Subpart UUU, Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units; amended December 1, 2015, at 80 FR 75178 (link); amended July 13, 2016, at 81 FR 45232 (link); except that the Secretary is not the Administrator for purposes of the authorities cited at 40 C.F.R. §§ 63.1578(c)(1) through (5).

57. through 85. No change.

86. 40 C.F.R. Part 63, Subpart DDDDD, Industrial, Commercial, and Institutional Boilers and Process Heaters; except that the Secretary is not the Administrator for purposes of the authorities cited at 40 C.F.R. §§ 63.7570(b)(1) through (5), promulgated March 21, 2011 at 76 FR 15608 (https://www.flrules.org/Gateway/reference.asp?No=Ref-03495); amended January 31, 2013 at 78 FR 7137 (https://www.flrules.org/Gateway/reference.asp?No=Ref-03496); amended November 20, 2015, at 80 FR 72790 (link).

87. through 91. No change.

92. 40 C.F.R. Part 63, Subpart JJJJJ, Brick and Structural Clay Products Manufacturing; amended October 26, 2015, at 80 FR 65470 (link); except that the Secretary is not the Administrator for purposes of the authorities cited at 40 C.F.R. §§ 63.8510(c)(1) through (4).

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amended July 7, 2015, at 80 FR 38628 (link); amended August 30, 2016, at 81 FR 59800 (link).

(9) Title 40, Code of Federal Regulations, Part 60, Emission Guidelines and Compliance Times.

(a) through (g) No change.

(h) Municipal Solid Waste Landfills. 40 C.F.R. Part 60, Subpart Cf, Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills that commenced construction, reconstruction, or modification on or before July 17, 2014, promulgated as of August 29, 2016, at 81 FR 59276 (link), is hereby adopted and incorporated by reference subject to the following provisions:

1. Designated Facilities. The applicable requirements of Paragraph 62-204.800(9)(h), F.A.C., shall apply to all designated facilities as set forth in 40 C.F.R. § 60.31f.

2. Compliance Times. The requirements for planning, awarding of contracts, installing, and starting up of Municipal Solid Waste Landfill air emission collection and control equipment applicable to each designated facility subject to paragraph 62-204.800(9)(h), F.A.C., shall be the same as set forth in 40 C.F.R. § 60.32f.

3. Emission Guidelines for Municipal Solid Waste Landfill Emissions. The emission limitations and operating limits applicable to each Municipal Solid Waste Landfill subject to paragraph 62-204.800(9)(h), F.A.C., shall be the same as set forth in 40 C.F.R. § 60.33f.

4. Operational Standards for Collection and Control Systems. The operational standards for landfill gas collection and control systems used to comply with 40 C.F.R. § 60.33f(b) and (c) at designated facilities subject to paragraph 62-204.800(9)(h), F.A.C., shall be the same as set forth in 40 C.F.R. § 60.34f.

5. Test Methods and Procedures. The test methods and procedures for determining the non-methane organic compunds (NMOC) emission rate or conducting surface emission monitoring demonstration at designated facilities subject to paragraph 62-204.800(9)(h), F.A.C., shall be the same as set forth in 40 C.F.R. § 60.35f.

6. Compliance Provisions. Owners and operators of designated facilities subject to paragraph 62-204.800(9)(h), F.A.C., must demonstrate compliance with the standards of 40 C.F.R. § 60.33f as set forth in 40 C.F.R. § 60.36f.

7. Monitoring of Operations. The monitoring requirements for owners and operators of designated facilities subject to paragraph 62-204.800(9)(h), F.A.C., shall be the same as set forth in 40 C.F.R. § 60.37f.

8. Reporting Guidelines. The reporting requirements for owners and operators of designated facilities subject to paragraph 62-204.800(9)(h), F.A.C., shall be the same as set forth in 40 C.F.R. § 60.38f.

9. Recordkeeping Guidelines. The recordkeeping requirements for owners and operators of designated facilities subject to paragraph 62-204.800(9)(h), F.A.C., shall be the same as set forth in 40 C.F.R. § 60.39f.

10. Specification for Active Collection Systems. The specifications for active collection systems at designated facilities subject to paragraph 62-204.800(9)(h), F.A.C., shall be the same as set forth in 40 C.F.R. § 60.40f.

11. Definitions. The definitions applicable to designated facilities subject to paragraph 62-204.800(9)(h), F.A.C., shall be the same as set forth in 40 C.F.R. §60.41f. For purposes of paragraph 62-204.800(9)(h), F.A.C., the definition of the term administrator means the department. The terms used but not defined in 40 C.F.R. Part 60, Subpart Cf, have the meaning given to them in the Clean Air Act and in 40 C.F.R. Part 60, Subparts A, B, and XXX.

12. 40 C.F.R. 60 Subparts WWW and Cc. A designated facility that is in compliance with the provisions of Paragraph 62-204.800(9)(h), F.A.C., ensures compliance with Paragraph 62-204.800(9)(c), F.A.C. (adopting 40 C.F.R. 60 Subpart Cc by reference), and 40 C.F.R. 60 Subpart WWW, as adopted and incorporated by reference in Rule 62-204.800, F.A.C.

(h) renumbered (i) No change.

(10) Title 40, Code of Federal Regulations, Part 61, National Emission Standards for Hazardous Air Pollutants.

(a) through (c) No change.

(d) General Provisions Adopted. The general provisions of 40 C.F.R. Part 61, Subpart A, revised as of July 1, 2001, amended May 16, 2007, at 72 FR 27437; amended September 13, 2010, at 75 FR 55636 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720); amended April 19, 2012, at 77 FR 23396 (http://www.flrules.org/Gateway/reference.asp?No=Ref-02487); amended February 16, 2012, at 77 FR 9303 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04925); amended February 27, 2014, 79 FR 11227 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04926); amended August 30, 2016, at 81 FR 59800 (link); are adopted and incorporated by reference; except for 40 C.F.R. § 61.08 and except that the Secretary is not the Administrator for the purposes of 40 C.F.R. § 61.04, 40 C.F.R. § 61.11, and 40 C.F.R. § 61.18. In lieu of the process set forth in 40 C.F.R. § 61.08, the Department will follow the permit processing procedures of Rule 62-4.055, F.A.C.

(e) Appendices Adopted. The following appendices of 40 C.F.R. Part 61, revised as of July 1, 2001, or later as specifically indicated, are adopted and incorporated by reference:

1. No change.

2. 40 C.F.R. Part 61, Appendix B, Test Methods, except Method 111 for Polonium 210, Method 114 for Radionuclides and Method 115 for Radon-222; amended September 13,

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(b) 40 C.F.R. Part 81, Subpart C, Section 107 Attainment Status Designations, § 81.310, revised as of July 1, 2009; amended November 22, 2010, at 75 FR 71033 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720); amended November 22, 2011, at 75 FR 72097 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720); amended February 17, 2012, at 77 FR 9532 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720); amended May 21, 2012, at 77 FR 30087 (http://www.flrules.org/Gateway/reference.asp?No=Ref-02487); amended August 5, 2013, 78 FR 47191 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04918); amended January 15, 2015, at 80 FR 2206 (link); amended September 6, 2016, at 81 FR 61136 (link *AJ1*); amended September 22, 2016, at 81 FR 65289 (link); is adopted and incorporated by reference.

(c) No change.

(24) through (27) No change.

*Rulemaking Authority 403.061, 403.8055 FS. Law Implemented 403.031, 403.061, 403.087, 403.0872, 403.8055 FS. History–New 3-13-96, Amended 6-25-96, 10-7-96, 10-17-96, 12-20-96, 4-18-97, 6-18-97, 7-7-97, 10-3-97, 12-10-97, 3-2-98, 4-7-98, 5-20-98, 6-8-98, 10-19-98, 4-1-99, 7-1-99, 9-1-99, 10-1-99, 4-1-00, 10-1-00, 1-1-01, 8-1-01, 10-1-01, 4-1-02, 7-1-02, 10-1-02, 1-1-03, 4-1-03, 10-1-03, 1-1-04, 4-1-04, 7-1-04, 10-1-04, 1-1-05, 4-1-05, 7-1-05, 10-1-05, 1-1-06, 4-1-06, 7-1-06, 9-4-06, 9-6-06, 1-8-07, 1-31-07, 4-2-07, 5-31-07, 7-2-07, 10-1-07, 2-1-08, 7-1-08, 10-1-08, 10-6-08, 12-1-08, 11-18-09, 6-11-10, 7-1-10, 10-1-10, 12-30-10, 12-1-11, 12-1-12, 5-22-13, 12-17-13, 1-24-14, 1-14-15, 1-7-16*_____.

DEPARTMENT OF HEALTH

Board of Medicine

RULE NO.: RULE TITLE:

64B8-4.009 Applications

PURPOSE AND EFFECT: The proposed rule amendments are intended to incorporate the revised application for interns/residents/fellows and house physicians, and the revised temporary certificate for visiting physicians.

SUMMARY: The proposed rule amendments to incorporate the revised application for interns/residents/fellows and house physicians, and the revised temporary certificate for visiting physicians.

SUMMARY OF STATEMENT OF ESTIMATED REGULATORY COSTS AND LEGISLATIVE RATIFICATION:

The Agency has determined that this will not have an adverse impact on small business or likely increase directly or indirectly regulatory costs in excess of $200,000 in the aggregate within one year after the implementation of the rule. A SERC has not been prepared by the Agency.

The Agency has determined that the proposed rule is not expected to require legislative ratification based on the statement of estimated regulatory costs or if no SERC is required, the information expressly relied upon and described herein: During discussion of the economic impact of this rule at its Board meeting, the Board concluded that this rule change will not have any impact on licensees and their businesses or the businesses that employ them. The rule will not increase any fees, business costs, personnel costs, will not decrease profit opportunities, and will not require any specialized knowledge to comply. This change will not increase any direct or indirect regulatory costs. Hence, the Board determined that a Statement of Estimated Regulatory Costs (SERC) was not necessary and that the rule will not require ratification by the Legislature. No person or interested party submitted additional information regarding the economic impact at that time.

Any person who wishes to provide information regarding a statement of estimated regulatory costs, or provide a proposal for a lower cost regulatory alternative must do so in writing within 21 days of this notice.

RULEMAKING AUTHORITY: 456.031, 456.033, 458.309, 458.311, 458.313, 458.3145, 458.3151, 458.345 FS.

LAW IMPLEMENTED: 456.013(1), (13), 456.0135, 456.031, 456.033, 456.039, 456.049, 456.50, 456.0635, 458.311, 458.3124, 458.313, 458.3137, 458.3145, 458.315, 458.3151, 458.316, 458.3165, 458.317, 458.320, 458.345, 766.314 FS.

IF REQUESTED WITHIN 21 DAYS OF THE DATE OF THIS NOTICE, A HEARING WILL BE SCHEDULED AND ANNOUNCED IN THE FAR.

THE PERSON TO BE CONTACTED REGARDING THE PROPOSED RULE IS: Claudia Kemp, J.D., Executive Director, Board of Medicine/MQA, 4052 Bald Cypress Way, Bin # C03, Tallahassee, Florida 32399-3253.

THE FULL TEXT OF THE PROPOSED RULE IS:

64B8-4.009 Applications.

(1) All persons applying for licensure shall submit an application to the Department. The application shall be made on the applicable form set forth below, all of which are hereby adopted and incorporated by reference and can be obtained from the website at http://www.flhealthsource.gov/mqa-services ~~http://www.doh.state.fl.us/mqa/medical/me_applicant.html~~. The application must be accompanied by the application fee.

(a) through (c) No change.

(d) DH-MQA 1032, entitled "Board of Medicine Application Materials for Initial Registration and Renewal of Intern/Resident/Fellow and House Physician," (8/16) ~~(7/16)~~ http://www.flrules.org/Gateway/reference.asp?No=Ref-__ ~~07433~~;

(e) No change.

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93. 40 C.F.R. Part 63, Subpart KKKKK, Clay Ceramics Manufacturing; amended October 26, 2015, at 80 FR 65470 (link); amended December 4, 2015, at 80 FR 75817 (link); except that the Secretary is not the Administrator for purposes of the authorities cited at 40 C.F.R. §§ 63.8660(c)(1) through (4).

94. through 101. No change.

102. 40 C.F.R. Part 63, Subpart UUUUU, Coal and Oil-Fired Electric Utility Steam Generating Units; promulgated February 16, 2012, at 77 FR 9303 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04925); amended April 19, 2012, at 77 FR 23399 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04914); amended April 24, 2013, at 78 FR 24073 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04917); amended November 19, 2014, at 79 FR 68777 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04937); amended March 24, 2015, at 80 FR 15510 (https://www.flrules.org/Gateway/reference.asp?No=Ref-06261); amended April 6, 2016, at 81 FR 20172 (link); except that the Secretary is not the Administrator for purposes of the authorities cited at 40 C.F.R. §§ 63.10041(b)(1) through (4).

103. through 108. No change.

109. 40 C.F.R. Part 63, Subpart JJJJJJ, Industrial, Commercial, and Institutional Boilers, revised as of July 1, 2015 (link), or later as specifically indicated, are adopted and incorporated by reference except that the Secretary is not the Administrator for purposes of the authorities cited at 40 C.F.R. §§ 63.11236(c)(1) through (5).

109. through 117. renumbered 110. through 118. No change.

(c) No change.

(d) General Subparts Adopted. The following general subparts of 40 C.F.R. Part 63, revised as of July 1, 2009, or later as specifically indicated, are adopted and incorporated by reference:

1. 40 C.F.R. Part 63, Subpart A, General Provisions; amended September 13, 2010, at 75 FR 55636 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720); amended March 21, 2011, at 76 FR 15554 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01740); amended March 21, 2011, at 76 FR 15608 (https://www.flrules.org/Gateway/reference.asp?No=Ref-03495); amended January 5, 2012, at 77 FR 556 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720); amended April 17, 2012, at 77 FR 22847 (http://www.flrules.org/Gateway/reference.asp?No=Ref-02487); amended August 14, 2012, at 77 FR 48433 (http://www.flrules.org/Gateway/reference.asp?No=Ref-02487); amended August 16, 2012 at 77 FR 49489 (http://www.flrules.org/Gateway/reference.asp?No=Ref-02487); amended September 11, 2012, at 77 FR 55698 (http://www.flrules.org/Gateway/reference.asp?No=Ref-02487); amended January 30, 2013, at 78 FR 6673 (https://www.flrules.org/Gateway/reference.asp?No=Ref-03483); amended January 31, 2013, at 78 FR 7137 (https://www.flrules.org/Gateway/reference.asp?No=Ref-03496); amended February 1, 2013, at 78 FR 7487 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04941); amended February 27, 2014, at 79 FR 11227 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04926); amended March 27, 2014, at 79 FR 17339 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04932); amended June 30, 2015, at 80 FR 37365 (https://www.flrules.org/Gateway/reference.asp?No=Ref-06263); amended August 19, 2015, at 80 FR 50385 (https://www.flrules.org/Gateway/reference.asp?No=Ref-06258); amended October 26, 2015, at 80 FR 65470 (link); amended December 1, 2015, at 80 FR 75178 (link); amended December 4, 2015, at 80 FR 75817 (link); amended August 30, 2016, at 81 FR 59800 (link); except that the Secretary is not the Administrator for purposes of the authorities cited at 40 C.F.R. § 63.5(e), 40 C.F.R. § 63.5(f), 40 C.F.R. § 63.6(g), 40 C.F.R. § 63.6(h)(9), 40 C.F.R. § 63.6(j), 40 C.F.R. § 63.13, and 40 C.F.R. § 63.14.

2. through 5. No change.

(e) Appendices Adopted. The following appendices of 40 C.F.R. Part 63, revised as of July 1, 2009, or later as specifically indicated, are adopted and incorporated by reference:

1. Appendix A, Test Methods; amended September 13, 2010, at 75 FR 55636 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720); amended February 27, 2014, 79 FR 11227 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04926); amended December 1, 2015, at 80 FR 75178 (link); amended August 30, 2016, at 81 FR 59800 (link).

2. through 5. No change.

(12) through (14) No change.

(15) Title 40, Code of Federal Regulations, Part 70, State Operating Permit Programs. The provisions of 40 C.F.R. Part 70, §§ 70.1 through 70.11, revised as of July 1, 2001; amended June 27, 2003, at 68 FR 38517; amended March 6, 2015, at FR 80 12263 (https://www.flrules.org/Gateway/reference.asp?No=Ref-06249); amended October 23, 2015, at 80 FR 64510 (link); amended June 3, 2016, at 81 FR 35622 (link); are adopted and incorporated by reference.

(16) through (22) No change.

(23) Title 40, Code of Federal Regulations, Part 81, Designation of Areas for Air Quality Planning Purposes.

(a) No change.

Rule Certification Package (January 13, 2017)

Florida Department of Environmental Protection

Marjory Stoneman Douglas Building
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

Rick Scott
Governor

Carlos Lopez-Cantera
Lt. Governor

Jonathan P. Steverson
Secretary

January 13, 2017

Mr. Ernie Reddick
Section Administrator
Administrative Code and Weekly Section
500 South Bronough Street, Room 101
Tallahassee, Florida 32399-0250

Re: Certification Package for Rule 62-204.800, F.A.C.,
OGC # 16-0274

Dear Mr. Reddick,

Attached is the certification package for Rule 62-204.800, F.A.C. Please note that this rulemaking is being done pursuant to Section 403.8055, F.S., which provides authority for the Department of Environmental Protection to adopt the U.S. Environmental Protection Agency standards by a special fast-track process.

Enclosed, please find the following:

1. Coded copy of rule 62-204.800
2. Certification for Federal Fast Track
3. Certification of Materials Incorporated by Reference
4. DOS email approval for the uploaded reference materials

If you have any questions regarding this rule, please feel free to contact me either at 850-245-2242 or Benjamin.Melnick@dep.state.fl.us, whichever is more convenient.

Sincerely,

Benjamin M. Melnick
Assistant General Counsel

FILED
2017 JAN 13 PM 12:20
DEPARTMENT OF STATE
TALLAHASSEE, FLORIDA

CERTIFICATION FOR FEDERAL FAST TRACK 403.8055

CERTIFICATION OF DEPARTMENT OF ENVIRONMENTAL PROTECTION

ADMINISTRATIVE RULES FILED WITH THE DEPARTMENT OF STATE

PURSUANT TO SECTION

403.8055, FLORIDA STATUTES

(ADOPTION OF FEDERAL STANDARDS)

I hereby certify:

[X] (1) The time limitations prescribed by Section 403.8055, F.S., and all applicable rulemaking requirements of the Department of State have been complied with; and

[X] (2) There is no non-frivolous objection, under Section 403.8055(4), F.S., pending on any rule covered by this certification, and

[X] (3) All rules covered by this certification are filed not less than 21 days after the notice required by Section 403.8055(1), F.S.

Attached are the original and two copies of each rule covered by this certification. The rules are hereby adopted by the undersigned agency by and upon their filing with the Department of State.

Rule No.

62-204.800

Under the provision of Section 403.8055(2), F.S., the rule(s) take effect upon the date designated below (but not earlier than the date of filing):

Effective: 1/13/17
(month) (day) (year)

Justin Wolfe
Deputy General Counsel

17
Number of Pages Certified

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CERTIFICATION OF MATERIALS INCORPORATED

BY REFERENCE IN RULES FILED WITH THE DEPARTMENT OF STATE

I hereby certify pursuant to Rule 1-1.013, Florida Administrative Code:

[X] (1) That materials incorporated by reference in Rule 62-204.800 have been electronically filed with the Department of State.

[ ] (2) That because there would be a violation of federal copyright laws if the submitting agency filed the incorporated materials described below electronically, a true and complete paper copy of the incorporated materials are attached to this certification for filing. Paper copies of the incorporated materials below may be obtained at the agency by [include address(es)/location(s)].

List form number(s) and form title(s), or title of document(s) below:

40 CFR Part 51, Subpart F; Published at Volume 81 of the Federal Register, Number 37, (February 25, 2016) pp 9339-9343

40 CFR Part 51, Subpart F, Published at Volume 81 of the Federal Register, Number 147, (August 1, 2016) pp 50330-50336

40 CFR Part 51, Subpart I; Part 52, Subpart A; and Part 70, Published at Volume 81 of the Federal Register, Number 107, (June 3, 2016) pp 35622-35634

40 CFR Part 52, Subpart K, Published at Volume 81 of the Federal Register, Number 148, (August 2, 2016) pp 50628-50630

40 CFR Part 52, Subpart K, Published at Volume 80 of the Federal Register, Number 186, (September 25, 2015) pp 57727-57729

40 CFR Part 52, Subpart K, Published at Volume 81 of the Federal Register, Number 190, (September 30, 2016) pp 67179-67185

40 CFR Part 52, Subpart K, Published at Volume 80 of the Federal Register, Number 205, (October 23, 2015) pp 64344-64346

40 CFR Part 52, Subpart K, Published at Volume 80 of the Federal Register, Number 185, (September 24, 2015) pp 57538-57540

40 CFR Part 58, Subparts A and D, Appendices A and D, Published at Volume 81 of the Federal Register, Number 59, (March 28, 2016) pp 17248-17229

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40 CFR Part 60, Appendices B and F, Published at Volume 80 of the Federal Register, Number 129, (July 7, 2015) pp 38628-38652

40 CFR Part 60, Appendix B, Published at Volume 80 of the Federal Register, Number 137, (July 17, 2015) pp 42397

40 CFR Part 60, Appendix F, Published at Volume 79 of the Federal Register, Number 95, (May 16, 2014) pp 28439-28444

40 CFR Part 60, Subparts J and Ja, Part 63, Subparts A, Y, CC and UUU, Published at Volume 80 of the Federal Register, Number 230, (December 1, 2015, 2015) pp 75178-75354

40 CFR Part 60, Subparts A, OOOO and OOOOa, Published at Volume 81 of the Federal Register, Number 107, (June 3, 2016) pp 35824-35942

40 CFR Part 60, Subparts A and Cf, Published at Volume 81 of the Federal Register, Number 167, (August 29, 2016) pp 59276-59330

40 CFR Part 60, Subparts A and XXX, Published at Volume 81 of the Federal Register, Number 167, (August 29, 2016) pp 59332-59384

40 CFR Part 60, Subpart Da, Part 63, Subpart UUUUU Published at Volume 81 of the Federal Register, Number 66, (April 6, 2016) pp 20172-20207

40 CFR Part 60, Subpart IIII, Published at Volume 81 of the Federal Register, Number 130, (July 7, 2016) pp 44212-44220

40 CFR Part 60, Subpart Ja, Part 63, Subparts CC and UUU, Published at Volume 81 of the Federal Register, Number 134, (July 13, 2016) pp 45232-45245

40 CFR Part 60, Subparts A and TTTT, Published at Volume 80 of the Federal Register, Number 205, (October 23, 2015) pp 64510-64660

40 CFR Part 60, Subpart CCCC, Published at Volume 81 of the Federal Register, Number 121, (June 23, 2016) pp 40956-41034

40 CFR Part 63, Subparts DDD and NNN, Published at Volume 80 of the Federal Register, Number 145, (July 29, 2015) pp 45280-45338

40 CFR Part 63, Subpart DDDDD, Published at Volume 80 of the Federal Register, Number 224, (November 20, 2015) pp 72790-72837

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40 CFR Part 63, Subpart GG, Published at Volume 80 of the Federal Register, Number 234, (December 7, 2015) pp 76152-76191

40 CFR Part 63, Subparts JJJJJ and KKKKK, Published at Volume 80 of the Federal Register, Number 206, (October 26, 2015) pp 65470-65570

40 CFR Part 63, Subparts A and KKKKK, Published at Volume 80 of the Federal Register, Number 233, (December 4, 2015) pp 75817

40 CFR Part 63, Subpart LLL, Published at Volume 81 of the Federal Register, Number 142, (July 25, 2016) pp 48356-48362

40 CFR Part 63, Subpart LLL, Published at Volume 80 of the Federal Register, Number 176, (September 11, 2015) pp 54728-54729

40 CFR Part 63, Subpart GG, Published at Volume 81 of the Federal Register, Number 149, (August 3, 2016) pp 51114-51116

40 CFR Part 63, Subpart JJJJJJ, as of July 1, 2015

40 CFR Part 63, Subpart RRR, Published at Volume 81 of the Federal Register, Number 113, (June 13, 2016) pp 38085-38095

40 CFR Part 81, Subpart C, Published at Volume 81 of the Federal Register, Number 172, (September 6, 2016) pp 61136-61142

40 CFR Part 81, Subpart C, Published at Volume 81 of the Federal Register, Number 184, (September 22, 2016) pp 65289

40 CFR Part 81, Subpart C, Published at Volume 80 of the Federal Register, Number 10, (January 15, 2015) pp 2206-2284

40 CFR Part 81, Subpart C, Published at Volume 81 of the Federal Register, Number 172, (September 6, 2016) pp 61136-61142

40 CFR Part 51, Appendices M and P, Part 60, Subparts A and JJJJ, Appendices A-1. A-2, A-3, A-4, A-5, A-6, A-7, A-8, B, and F, Part 61, Subpart A, Appendix B, Part 63, Subpart A, Appendix A, Published at Volume 81 of the Federal Register, Number 168, (August 30, 2016) pp 59800-59826

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Under the provisions of Section 403.8055(2)F.S., the attached material(s) take effect upon the date designated below (but not earlier than the date of filing):

Justin Wolfe

Deputy General Counsel

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62-204.800 Federal Regulations Adopted by Reference.

All federal regulations cited throughout the air pollution rules of the Department are adopted and incorporated by reference in this rule. The purpose and effect of each such federal regulation is determined by the context in which it is cited. Procedural and substantive requirements in the incorporated federal regulations are binding as a matter of state law only where the context so provides.

(1) No change.

(2) Title 40, Code of Federal Regulations, Part 51, Requirements for Preparation, Adoption, and Submittal of Implementation Plans.

(a) The following subparts of 40 C.F.R. Part 51, revised as of July 1, 2006, or later as specifically indicated, are adopted and incorporated by reference:

1. 40 C.F.R. Part 51, Subpart F, Procedural Requirements; amended January 18, 2007, at 72 FR 2193, amended July 16, 2007, at 72 FR 38787; amended March 24, 2008, at 73 FR 15603; amended January 21, 2009, at 74 FR 3437; amended June 23, 2009, at 74 FR 29595; amended June 22, 2012, at 77 FR 37610 (http://www.flrules.org/Gateway/reference.asp?No=Ref-02487); amended February 12, 2013, at 78 FR 9823 (https://www.flrules.org/Gateway/reference.asp?No=Ref-03490); amended August 28, 2013, at 78 FR 53029 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04920); amended October 22, 2013, at 78 FR 62451 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04939); amended March 27, 2014, at 79 FR 17037 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04931); amended February 25, 2016, at 81 FR 9339 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07786); amended August 1, 2016, at 81 FR 50330 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07787).

2. 40 C.F.R. Part 51, Subpart I, Review of New Sources and Modifications; amended May 16, 2008, at 73 FR 28321 (https://www.flrules.org/Gateway/reference.asp?No=Ref-03485); amended October 20, 2010, at 75 FR 64864 (http://www.flrules.org/Gateway/reference.asp?No=Ref-00745); amended June 3, 2010, at 75 FR 31513 (https://www.flrules.org/Gateway/reference.asp?No=Ref-03488); amended January 15, 2013, at 78 FR 3085 (https://www.flrules.org/Gateway/reference.asp?No=Ref-03487), amended August 19, 2015, at 80 FR 50199 (https://www.flrules.org/Gateway/reference.asp?No=Ref-06250); amended June 3, 2016, at 81 FR 35622 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07788).

3. through 5. No change.

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(b) The following appendices of 40 C.F.R. Part 51, revised as of July 1, 2006, or later as specifically indicated, are adopted and incorporated by reference:

1. 40 C.F.R. Part 51, Appendix M, Recommended Test Methods for State Implementation Plans; amended September 21, 2006, at 71 FR 55119; amended May 29, 2008, at 73 FR 30775; amended December 21, 2010, at 75 FR 80118 (http://www.flrules.org/Gateway/reference.asp?No=Ref-00746); amended September 13, 2010, at 75 FR 55636 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720); amended February 27, 2014, 79 FR 11227 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04926) amended August 30, 2016, at 81 FR 59800 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07789).

2. 40 C.F.R. Part 51, Appendix P, Minimum Emission Monitoring Requirements; amended August 30, 2016, at 81 FR 59800 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07789).

3. through 4. No change.

(3) Title 40, Code of Federal Regulations, Part 52, Approval and Promulgation of Implementation Plans. The following subparts of 40 C.F.R. Part 52, revised as of July 1, 2003, or later as specifically indicated, are adopted and incorporated by reference:

(a) 40 C.F.R. Part 52, Subpart A, General Provisions; revised as of July 1, 2011 (https://www.flrules.org/Gateway/reference.asp?No=Ref-03499), or later as specifically indicated, except for the provisions of 40 C.F.R. §52.21(b)(49)(v), are adopted and incorporated by reference; amended July 12, 2012, at 77 FR 41051 (https://www.flrules.org/Gateway/reference.asp?No=Ref-03489); amended October 25, 2012, at 77 FR 65107 (https://www.flrules.org/Gateway/reference.asp?No=Ref-03486); amended January 15, 2013, at 78 FR 3085 (https://www.flrules.org/Gateway/reference.asp?No=Ref-03487); amended May 19, 2014, at 79 FR 28607 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04933); amended May 7, 2015, at 80 FR 26183 (https://www.flrules.org/Gateway/reference.asp?No=Ref-06254); amended June 12, 2015, at 80 FR 33413 (https://www.flrules.org/Gateway/reference.asp?No=Ref-06255); amended March 6, 2015, at FR 80 12263 (https://www.flrules.org/Gateway/reference.asp?No=Ref-06249); amended August 19, 2015, at 80 FR 50199 (https://www.flrules.org/Gateway/reference.asp?No=Ref-06250); amended June 3, 2016, at 81 FR 35622 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07788).

(b) 40 C.F.R. Part 52, Subpart K, Florida, amended July 22, 2003, at 68 FR 43312; amended August 11, 2003, at 68 FR 47468; amended February 13, 2004, at 69 FR 7127; amended March 29, 2004, at 69 FR 16167; amended June

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17, 2004, at 69 FR 33860; amended April 28, 2006, at 71 FR 25327; amended November 28, 2006, at 71 FR 68743; amended October 12, 2007, at 72 FR 58016; amended September 16, 2008, at 73 FR 53378; amended June 1, 2009, at 74 FR 26103; amended May 27, 2010, at 75 FR 29671 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720); amended April 12, 2011, at 76 FR 20239 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720); amended June 15, 2012, at 77 FR 35862 (http://www.flrules.org/Gateway/reference.asp?No=Ref-02487); amended July 30, 2012, at 77 FR 44485 (http://www.flrules.org/Gateway/reference.asp?No=Ref-02487); amended September 19, 2012, at 77 FR 58027 (http://www.flrules.org/Gateway/reference.asp?No=Ref-02487); amended October 11, 2012, at 77 FR 61724 (http://www.flrules.org/Gateway/reference.asp?No=Ref-02487); amended November 8, 2012, at 77 FR 66927 (http://www.flrules.org/Gateway/reference.asp?No=Ref-02487); amended November 27, 2012, at 77 FR 70687 (http://www.flrules.org/Gateway/reference.asp?No=Ref-02487); amended November 29, 2012, at 77 FR 71111 (http://www.flrules.org/Gateway/reference.asp?No=Ref-02487); amended April 3, 2013, at 78 FR 19998 (http://www.flrules.org/Gateway/reference.asp?No=Ref-04913); amended June 20, 2013, at 78 FR 37132 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04930); amended August 29, 2013, at 78 FR 53250 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04921); amended November 1, 2013, at 78 FR 65559 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04935); amended November 18, 2013, at 78 FR 68997 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04936); amended December 2, 2013, at 78 FR 72033 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04922); amended January 6, 2014, at 79 FR 573 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04928); amended May 19, 2014, at 79 FR 28607 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04933); amended May 27, 2014, at FR 79 30045 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04934); amended August 25, 2014, at 79 FR 50554 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04919); amended October 16, 2014, at 79 FR 62006 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04938); amended March 18, 2015, at 80 FR 14019 (https://www.flrules.org/Gateway/reference.asp?No=Ref-06251); amended April 16, 2015, at 80 FR 20441 (https://www.flrules.org/Gateway/reference.asp?No=Ref-06252); amended August 12, 2015, at 80 FR 48259 (https://www.flrules.org/Gateway/reference.asp?No=Ref-06253); amended September 24, 2015, at 80 FR 57538 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07792); amended September 25, 2015, at 80 FR 57727 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07791); amended October 23, 2015, at 80 FR 64344 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07793); amended August 2, 2016, at 81 FR 50628

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(https://www.flrules.org/Gateway/reference.asp?No=Ref-07794); amended September 30, 2016, at 81 FR 67179 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07795).

(4) through (5) No change.

(6) Title 40, Code of Federal Regulations, Part 58, Ambient Air Quality Surveillance.

(a) The following subparts of 40 C.F.R. Part 58, revised as of July 1, 2006, or later as specifically indicated, are adopted and incorporated by reference:

1. 40 C.F.R. Part 58, Subpart A, General Provisions; amended October 17, 2006, at 71 FR 61235; amended February 9, 2010, at 75 FR 6473; amended January 15, 2013, at 78 FR 3085 (https://www.flrules.org/Gateway/reference.asp?No=Ref-03487); amended March 28, 2016, at 81 FR 17248 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07796).

2. 40 C.F.R. Part 58, Subpart B, Monitoring Network, amended October 17, 2006, at 71 FR 61235; amended June 12, 2007, at 72 FR 32193; amended November 12, 2008, at 73 FR 66963; amended February 9, 2010, at 75 FR 6473; amended June 22, 2010, at 75 FR 35520 (http://www.flrules.org/Gateway/reference.asp?No=Ref-00744); amended December 27, 2010, at 75 FR 81126 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720); amended August 31, 2011, at 76 FR 54293 (http://www.flrules.org/Gateway/reference.asp?No=Ref-02487); amended January 15, 2013, at 78 FR 3085 (https://www.flrules.org/Gateway/reference.asp?No=Ref-03487), amended March 14, 2013, at 78 FR 16184 (https://www.flrules.org/Gateway/reference.asp?No=Ref-03491); amended March 28, 2016, at 81 FR 17248 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07796).

3. through 6. No change.

(b) The following appendices of 40 C.F.R. Part 58, revised as of July 1, 2006, or later as specifically indicated, are adopted and incorporated by reference:

1. 40 C.F.R. Part 58, Appendix A, Quality Assurance Requirements for SLAMS, SPMs and PSD Air Monitoring; amended October 17, 2006, at 71 FR 61235; amended June 12, 2007, at 72 FR 32193; amended November 12, 2008, at 73 FR 66963; amended February 9, 2010, at 75 FR 6473; amended June 22, 2010, at 75 FR 35520 (http://www.flrules.org/Gateway/reference.asp?No=Ref-00744); amended December 27, 2010, at 75 FR 81126 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720); amended January 15, 2013, at 78 FR 3085 (https://www.flrules.org/Gateway/reference.asp?No=Ref-03487); amended March 28, 2016, at 81 FR 17248 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07796).

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2. No change.

3. 40 C.F.R. 58, Appendix D, Network Design Criteria for Ambient Air Quality Monitoring; amended October 17, 2006, at 71 FR 61235; amended June 12, 2007, at 72 FR 32193; amended November 12, 2008, at 73 FR 66963; amended February 9, 2010, at 75 FR 6473; amended June 22, 2010, at 75 FR 35520 (http://www.flrules.org/Gateway/reference.asp?No=Ref-00744); amended December 27, 2010, at 75 FR 81126 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720); amended January 15, 2013, at 78 FR 3085 (https://www.flrules.org/Gateway/reference.asp?No=Ref-03487); amended March 28, 2016, at 81 FR 17248 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07796).

4. through 5. No change.

(7) No change.

(8) Title 40, Code of Federal Regulations, Part 60, Standards of Performance for New Stationary Sources.

(a) No change.

(b) Standards Adopted. The following Standards of Performance for New Stationary Sources contained in 40 C.F.R. Part 60, revised as of July 1, 2009, or later as specifically indicated, are adopted and incorporated by reference:

1. No change.

2. 40 C.F.R. Part 60, Subpart Da, Electric Utility Steam Generators for Which Construction is Commenced After September 18, 1978; amended January 20, 2011, at 76 FR 3517 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720); amended April 19, 2012, at 77 FR 23399 (http://www.flrules.org/Gateway/reference.asp?No=Ref-02487); amended February 16, 2012, at 77 FR 9303 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04925); amended April 24, 2013, 78 FR 24073 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04917); amended November 19, 2014, at 79 FR 68777 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04937); amended April 6, 2016, at 81 FR 20172 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07797); except that the Secretary is not the Administrator for purposes of 40 C.F.R. § 60.47Da.

3. through 13. No change.

14. 40 C.F.R. Part 60, Subpart J, Petroleum Refineries; amended September 12, 2012, at 77 FR 56421 (http://www.flrules.org/Gateway/reference.asp?No=Ref-02487); amended December 1, 2015, at 80 FR 75178 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07798); except that the Secretary is not the Administrator

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for purposes of the authorities cited at 40 C.F.R. §60.109(b).

15. 40 C.F.R. Part 60, Subpart Ja, Standards of Performance for Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007; amended February 25, 2011, at 76 FR 10524 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720); amended December 19, 2013, at 78 FR 76753 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04923); amended December 1, 2015, at 80 FR 75178 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07798); amended July 13, 2016, at 81 FR 45232 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07799); except that the Secretary is not the Administrator for purposes of the authorities cited at 40 C.F.R. § 60.109a(b).

16. through 76. No change.

77. 40 CFR Part 60, Subpart XXX, Municipal Solid Waste Landfills, promulgated August 29, 2016, at 81 FR 59332 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07800).

77. renumbered 78. No change.

79.~~78.~~ 40 C.F.R. Part 60, Subpart CCCC, Commercial and Industrial Solid Waste Incineration Units; amended February 7, 2013, at 78 FR 9111 (https://www.flrules.org/Gateway/reference.asp?No=Ref-03492); amended June 23, 2016, at 81 FR 40956 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07801). Any CISWI unit subject to the permitting requirements of Chapter 62-213, F.A.C., solely because it is subject to 40 C.F.R. 60, Subpart CCCC, shall file an application for an operation permit under the requirements of Chapter 62-213, F.A.C., in accordance with paragraph 62-213.420(1)(a), F.A.C.

79. renumbered 80. No change.

81.~~80.~~ 40 C.F.R. Part 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines; amended June 28, 2011, at 76 FR 37954 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720); amended January 30, 2013, at 78 FR 6673 (https://www.flrules.org/Gateway/reference.asp?No=Ref-03483); amended February 27, 2014, 79 FR 11227 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04926); amended July 7, 2016, at 81 FR 44212 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07802); except that the Secretary is not the Administrator for purposes of 40 C.F.R. § 60.4201, 60.4202, 60.4203, 60.4210 and 60.4215 and 60.4216.

82.~~81.~~ 40 C.F.R. Part 60, Subpart JJJJ, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines; amended June 28, 2011, at 76 FR 37954

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(http://www.flrules.org/Gateway/reference.asp?No=Ref-01720); amended January 30, 2013, at 78 FR 6673 (https://www.flrules.org/Gateway/reference.asp?No=Ref-03483); amended February 27, 2014, 79 FR 11227 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04926); amended August 30, 2016, at 81 FR 59800 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07789); except that the Secretary is not the Administrator for purposes of 40 C.F.R. § 60.4231, 60.4232, 60.4238, 60.4239, 60.4240, 60.4241, 60.4242, and 60.4247.

82. through 83. renumbered 83. Through 84. No change.

85.~~84.~~ 40 C.F.R. Part 60, Subpart OOOO, Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution, promulgated August 16, 2012, at 77 FR 49489 (http://www.flrules.org/Gateway/reference.asp?No=Ref-02487); amended June 3, 2016, at 81 FR 35824 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07803).

86. 40 C.F.R. Part 60, Subpart OOOOa, Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources, promulgated June 3, 2016, at 81 FR 35824 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07803).

87. 40 C.F.R. Part 60, Subpart TTTT, Standards of Performance for Greenhouse Gas Emissions for Electric Generating Units, promulgated October 23, 2015, at 80 FR 64510 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07804).

(c) No change.

(d) General Provisions Adopted. The general provisions of 40 C.F.R. Part 60, Subpart A, revised as of July 1, 2009; amended October 6, 2009, at 74 FR 51368; amended September 13, 2010, at 75 FR 55636 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720), amended March 21, 2011, at 76 FR 15554 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04940); amended January 18, 2012, at 77 FR 2456 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720); amended April 19, 2012, at 77 FR 23396 (http://www.flrules.org/Gateway/reference.asp?No=Ref-02487); amended August 16, 2012, at 77 FR 49489 (http://www.flrules.org/Gateway/reference.asp?No=Ref-02487); amended September 12, 2012, at 77 FR 56421 (http://www.flrules.org/Gateway/reference.asp?No=Ref-02487); amended January 30, 2013, at 78 FR 6673 (https://www.flrules.org/Gateway/reference.asp?No=Ref-03483); amended February 27, 2014, 79 FR 11227 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04926); amended October 23, 2015, at 80 FR 64510 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07804); amended June 3, 2016, at 81 FR 35824

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(https://www.flrules.org/Gateway/reference.asp?No=Ref-07803); amended August 29, 2016, at 81 FR 59276 (http://www.flrules.org/Gateway/reference.asp?No=Ref-07805); amended August 29, 2016, at 81 FR 59332 (http://www.flrules.org/Gateway/reference.asp?No=Ref-07800); amended August 30, 2016, at 81 FR 59800 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07789); are adopted and incorporated by reference except that the Secretary is not the Administrator for purposes of 40 C.F.R. § 60.4, 40 C.F.R. § 60.8(b)(2) and (3), 40 C.F.R. § 60.11(e)(7) and (8), 40 C.F.R. § 60.13(g), (i) and (j)(2), and 40 C.F.R. § 60.16.

(e) Appendices Adopted. The following appendices of 40 C.F.R. Part 60, revised as of July 1, 2009, or later as specifically indicated, are adopted and incorporated by reference:

1. 40 C.F.R. Part 60, Appendix A-1, Test Methods 1 through 2F; amended February 27, 2014, 79 FR 11227 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04926); amended August 30, 2016, at 81 FR 59800 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07789).

2. 40 C.F.R. Part 60, Appendix A-2, Test Methods 2G through 3C; amended February 27, 2014, 79 FR 11227 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04926); amended August 30, 2016, at 81 FR 59800 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07789).

3. 40 C.F.R. Part 60, Appendix A-3, Test Methods 4 through 5I; amended September 13, 2010, at 75 FR 55636 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720); amended February 27, 2014, at 79 FR 11227 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04926); amended August 30, 2016, at 81 FR 59800 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07789).

4. 40 C.F.R. Part 60, Appendix A-4, Test Methods 6 through 10B; amended September 13, 2010, at 75 FR 55636 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720); amended February 27, 2014, 79 FR 11227 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04926); amended August 30, 2016, at 81 FR 59800 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07789).

5. 40 C.F.R. Part 60, Appendix A-5, Test Methods 11 through 15A; amended September 13, 2010, at 75 FR 55636 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720); amended February 27, 2014, 79 FR 11227 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04926); amended August 30, 2016, at 81 FR 59800 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07789).

6. 40 C.F.R. Part 60, Appendix A-6, Test Methods 16 through 18; amended September 13, 2010, at 75 FR 55636 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720); amended July 30, 2012, at FR 44488

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(http://www.flrules.org/Gateway/reference.asp?No=Ref-02487); amended February 27, 2014, 79 FR 11227 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04926); amended August 30, 2016, at 81 FR 59800 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07789).

7. 40 C.F.R. Part 60, Appendix A-7, Test Methods 19 through 25E; amended September 13, 2010, at 75 FR 55636 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720), amended January 18, 2012, at 77 FR 2456 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720); amended February 27, 2014, 79 FR 11227 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04926); amended August 30, 2016, at 81 FR 59800 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07789); except that in Method 23, the toluene rinse concentrate may be added to the acetone and methylene chloride concentrate, the filter, and the resin in the Soxhlet apparatus specified at section 5.1.4 of the method prior to analysis, in lieu of separate analysis of the toluene rinse extract pursuant to section 5.1.6 of the method.

8. 40 C.F.R. Part 60, Appendix A-8, Test Methods 26 through 30B; amended September 13, 2010, at 75 FR 55636 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720); amended February 27, 2014, 79 FR 11227 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04926); amended August 30, 2016, at 81 FR 59800 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07789).

9. 40 C.F.R. Part 60, Appendix B, Performance Specifications; amended February 27, 2014, at 79 FR 11227 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04926); amended July 7, 2015, at 80 FR 38628 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07806); amended July 17, 2015, at 80 FR 42397 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07807); amended August 30, 2016, at 81 FR 59800 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07789).

10. through 11. No change.

12. 40 C.F.R. Part 60, Appendix F, Quality Assurance Procedures; amended February 27, 2014, 79 FR 11227 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04926); amended May 16, 2014, at 79 FR 28439 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07808) amended July 7, 2015, at 80 FR 38628 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07806); amended August 30, 2016, at 81 FR 59800 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07789).

(9) Title 40, Code of Federal Regulations, Part 60, Emission Guidelines and Compliance Times.

(a) through (g) No change.

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(h) Municipal Solid Waste Landfills. 40 C.F.R. Part 60, Subpart Cf, Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills that commenced construction, reconstruction, or modification on or before July 17, 2014, promulgated as of August 29, 2016, at 81 FR 59276 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07805), is hereby adopted and incorporated by reference subject to the following provisions:

1. Designated Facilities. The applicable requirements of Paragraph 62-204.800(9)(h), F.A.C., shall apply to all designated facilities as set forth in 40 C.F.R. § 60.31f.

2. Compliance Times. The requirements for planning, awarding of contracts, installing, and starting up of Municipal Solid Waste Landfill air emission collection and control equipment applicable to each designated facility subject to paragraph 62-204.800(9)(h), F.A.C., shall be the same as set forth in 40 C.F.R. § 60.32f.

3. Emission Guidelines for Municipal Solid Waste Landfill Emissions. The emission limitations and operating limits applicable to each Municipal Solid Waste Landfill subject to paragraph 62-204.800(9)(h), F.A.C., shall be the same as set forth in 40 C.F.R. § 60.33f.

4. Operational Standards for Collection and Control Systems. The operational standards for landfill gas collection and control systems used to comply with 40 C.F.R. § 60.33f(b) and (c) at designated facilities subject to paragraph 62-204.800(9)(h), F.A.C., shall be the same as set forth in 40 C.F.R. § 60.34f.

5. Test Methods and Procedures. The test methods and procedures for determining the non-methane organic compunds (NMOC) emission rate or conducting surface emission monitoring demonstration at designated facilities subject to paragraph 62-204.800(9)(h), F.A.C., shall be the same as set forth in 40 C.F.R. § 60.35f.

6. Compliance Provisions. Owners and operators of designated facilities subject to paragraph 62-204.800(9)(h), F.A.C., must demonstrate compliance with the standards of 40 C.F.R. § 60.33f as set forth in 40 C.F.R. § 60.36f.

7. Monitoring of Operations. The monitoring requirements for owners and operators of designated facilities subject to paragraph 62-204.800(9)(h), F.A.C., shall be the same as set forth in 40 C.F.R. § 60.37f.

8. Reporting Guidelines. The reporting requirements for owners and operators of designated facilities subject to paragraph 62-204.800(9)(h), F.A.C., shall be the same as set forth in 40 C.F.R. § 60.38f.

9. Recordkeeping Guidelines. The recordkeeping requirements for owners and operators of designated facilities subject to paragraph 62-204.800(9)(h), F.A.C., shall be the same as set forth in 40 C.F.R. § 60.39f.

10. Specification for Active Collection Systems. The specifications for active collection systems at designated

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facilities subject to paragraph 62-204.800(9)(h), F.A.C., shall be the same as set forth in 40 C.F.R. § 60.40f.

11. Definitions. The definitions applicable to designated facilities subject to paragraph 62-204.800(9)(h), F.A.C., shall be the same as set forth in 40 C.F.R. §60.41f. For purposes of paragraph 62-204.800(9)(h), F.A.C., the definition of the term administrator means the department. The terms used but not defined in 40 C.F.R. Part 60, Subpart Cf, have the meaning given to them in the Clean Air Act and in 40 C.F.R. Part 60, Subparts A, B, and XXX.

12. 40 C.F.R. 60 Subparts WWW and Cc. A designated facility that is in compliance with the provisions of Paragraph 62-204.800(9)(h), F.A.C., ensures compliance with Paragraph 62-204.800(9)(c), F.A.C. (adopting 40 C.F.R. 60 Subpart Cc by reference), and 40 C.F.R. 60 Subpart WWW, as adopted and incorporated by reference in Rule 62-204.800, F.A.C.

(h) renumbered (i) No change.

(10) Title 40, Code of Federal Regulations, Part 61, National Emission Standards for Hazardous Air Pollutants.

(a) through (c) No change.

(d) General Provisions Adopted. The general provisions of 40 C.F.R. Part 61, Subpart A, revised as of July 1, 2001, amended May 16, 2007, at 72 FR 27437; amended September 13, 2010, at 75 FR 55636 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720); amended April 19, 2012, at 77 FR 23396 (http://www.flrules.org/Gateway/reference.asp?No=Ref-02487); amended February 16, 2012, at 77 FR 9303 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04925); amended February 27, 2014, 79 FR 11227 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04926); amended August 30, 2016, at 81 FR 59800 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07789); are adopted and incorporated by reference; except for 40 C.F.R. § 61.08 and except that the Secretary is not the Administrator for the purposes of 40 C.F.R. § 61.04, 40 C.F.R. § 61.11, and 40 C.F.R. § 61.18. In lieu of the process set forth in 40 C.F.R. § 61.08, the Department will follow the permit processing procedures of Rule 62-4.055, F.A.C.

(e) Appendices Adopted. The following appendices of 40 C.F.R. Part 61, revised as of July 1, 2001, or later as specifically indicated, are adopted and incorporated by reference:

1. No change.

2. 40 C.F.R. Part 61, Appendix B, Test Methods, except Method 111 for Polonium 210, Method 114 for Radionuclides and Method 115 for Radon-222; amended September 13, 2010, at 75 FR 55636 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720); amended February 27, 2014, 79 FR 11227

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(https://www.flrules.org/Gateway/reference.asp?No=Ref-04926); amended August 30, 2016, at 81 FR 59800 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07789).

3. No change.

(11) Title 40, Code of Federal Regulations, Part 63, National Emission Standards for Hazardous Air Pollutants for Source Categories.

(a) No change.

(b) Standards Adopted. The following National Emission Standards for Hazardous Air Pollutants contained in 40 C.F.R. Part 63, revised as of July 1, 2009, or later as specifically indicated, are adopted and incorporated by reference:

1. through 16. No change.

17. 40 C.F.R. Part 63, Subpart Y, Marine Tank Vessel Loading Operations; amended April 21, 2011, at 76 FR 22566 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720); amended February 27, 2014, 79 FR 11227 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04926); amended December 1, 2015, at 80 FR 75178 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07798); except that the Secretary is not the Administrator for purposes of the authorities cited at 40 C.F.R. §§ 63.568(c)(1) through (4).

18. through 19. No change.

20. 40 C.F.R. Part 63, Subpart CC, Petroleum Refineries; amended June 30, 2010, at 75 FR 37730 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720); amended June 20, 2013, at 78 FR 37133 (https://www.flrules.org/Gateway/reference.asp?No=Ref-03498); amended December 1, 2015, at 80 FR 75178 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07798); amended July 13, 2016, at 81 FR 45232 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07799); except that the Secretary is not the Administrator for purposes of the authorities cited at 40 C.F.R. §§ 63.655(c)(1) through (4).

21. through 22. No change.

23. 40 C.F.R. Part 63, Subpart GG, Aerospace Manufacturing and Rework Facilities; amended February 27, 2014, 79 FR 11227 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04926); amended December 7, 2015, at 80 FR 76152 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07809); amended August 3, 2016, at 81 FR 51114 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07810); except that the Secretary is not the Administrator for purposes of the authorities cited at 40 C.F.R. §§ 63.759(c)(1) through (4).

24. through 41. No change.

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42. 40 C.F.R. Part 63, Subpart DDD, Mineral Wool Production; amended July 29, 2015, at 80 FR 45280 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07811); except that the Secretary is not the Administrator for purposes of the authorities cited at 40 C.F.R. §§ 63.1195(c)(1) through (4).

43. through 47. No change.

48. 40 C.F.R. Part 63, Subpart LLL, Portland Cement Manufacturing Industry; amended February 12, 2013, at 78 FR 10005 (https://www.flrules.org/Gateway/reference.asp?No=Ref-03494); amended July 27, 2015, at 80 FR 44771 (https://www.flrules.org/Gateway/reference.asp?No=Ref-06257); amended September 11, 2015, at 80 FR 54728 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07812); amended July 25, 2016, at 81 FR 48356 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07813); except that the Secretary is not the Administrator for purposes of the authorities cited at 40 C.F.R. §§ 63.1358(c)(1) through (4). If a facility becomes subject to the permitting requirements of Chapter 62-213, F.A.C., solely because it is subject to the emission limiting requirements of 40 C.F.R. Part 63, Subpart LLL, the facility shall submit an application for such permit no later than October 1, 2000.

49. No change.

50. 40 C.F.R. Part 63, Subpart NNN, Wool Fiberglass Manufacturing; amended July 29, 2015, at 80 FR 45280 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07811); except that the Secretary is not the Administrator for purposes of the authorities cited at 40 C.F.R. §§ 63.1388(c)(1) through (4).

51. through 53. No change.

54. 40 C.F.R. Part 63, Subpart RRR, Secondary Aluminum Production; amended February 27, 2014, 79 FR 11227 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04926); amended June 13, 2016, at 81 FR 38085 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07814); except that the Secretary is not the Administrator for purposes of the authorities cited at 40 C.F.R. §§ 63.1519(c)(1) through (4).

55. No change.

56. 40 C.F.R. Part 63, Subpart UUU, Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units; amended December 1, 2015, at 80 FR 75178 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07798); amended July 13, 2016, at 81 FR 45232 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07799); except that the Secretary is not the Administrator for purposes of the authorities cited at 40 C.F.R. §§ 63.1578(c)(1) through (5).

57. through 85. No change.

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86. 40 C.F.R. Part 63, Subpart DDDDD, Industrial, Commercial, and Institutional Boilers and Process Heaters; except that the Secretary is not the Administrator for purposes of the authorities cited at 40 C.F.R. §§ 63.7570(b)(1) through (5), promulgated March 21, 2011 at 76 FR 15608 (https://www.flrules.org/Gateway/reference.asp?No=Ref-03495); amended January 31, 2013 at 78 FR 7137 (https://www.flrules.org/Gateway/reference.asp?No=Ref-03496); amended November 20, 2015, at 80 FR 72790 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07815).

87. through 91. No change.

92. 40 C.F.R. Part 63, Subpart JJJJJ, Brick and Structural Clay Products Manufacturing; amended October 26, 2015, at 80 FR 65470 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07816); except that the Secretary is not the Administrator for purposes of the authorities cited at 40 C.F.R. §§ 63.8510(c)(1) through (4).

93. 40 C.F.R. Part 63, Subpart KKKKK, Clay Ceramics Manufacturing; amended October 26, 2015, at 80 FR 65470 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07816); amended December 4, 2015, at 80 FR 75817 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07817); except that the Secretary is not the Administrator for purposes of the authorities cited at 40 C.F.R. §§ 63.8660(c)(1) through (4).

94. through 101. No change.

102. 40 C.F.R. Part 63, Subpart UUUUU, Coal and Oil-Fired Electric Utility Steam Generating Units; promulgated February 16, 2012, at 77 FR 9303 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04925); amended April 19, 2012, at 77 FR 23399 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04914); amended April 24, 2013, at 78 FR 24073 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04917); amended November 19, 2014, at 79 FR 68777 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04937); amended March 24, 2015, at 80 FR 15510 (https://www.flrules.org/Gateway/reference.asp?No=Ref-06261); amended April 6, 2016, at 81 FR 20172 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07797); except that the Secretary is not the Administrator for purposes of the authorities cited at 40 C.F.R. §§ 63.10041(b)(1) through (4).

103. through 108. No change.

109. 40 C.F.R. Part 63, Subpart JJJJJJ, Industrial, Commercial, and Institutional Boilers, revised as of July 1, 2015 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07818), or later as specifically indicated, are adopted and incorporated by reference except that the Secretary is not the Administrator for purposes of the authorities cited at 40 C.F.R. §§ 63.11236(c)(1) through (5).

109. through 117. renumbered 110. through 118. No change.

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(c) No change.

(d) General Subparts Adopted. The following general subparts of 40 C.F.R. Part 63, revised as of July 1, 2009, or later as specifically indicated, are adopted and incorporated by reference:

1. 40 C.F.R. Part 63, Subpart A, General Provisions; amended September 13, 2010, at 75 FR 55636 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720); amended March 21, 2011, at 76 FR 15554 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01740); amended March 21, 2011, at 76 FR 15608 (https://www.flrules.org/Gateway/reference.asp?No=Ref-03495); amended January 5, 2012, at 77 FR 556 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720); amended April 17, 2012, at 77 FR 22847 (http://www.flrules.org/Gateway/reference.asp?No=Ref-02487); amended August 14, 2012, at 77 FR 48433 (http://www.flrules.org/Gateway/reference.asp?No=Ref-02487); amended August 16, 2012 at 77 FR 49489 (http://www.flrules.org/Gateway/reference.asp?No=Ref-02487); amended September 11, 2012, at 77 FR 55698 (http://www.flrules.org/Gateway/reference.asp?No=Ref-02487); amended January 30, 2013, at 78 FR 6673 (https://www.flrules.org/Gateway/reference.asp?No=Ref-03483); amended January 31, 2013, at 78 FR 7137 (https://www.flrules.org/Gateway/reference.asp?No=Ref-03496); amended February 1, 2013, at 78 FR 7487 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04941); amended February 27, 2014, at 79 FR 11227 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04926); amended March 27, 2014, at 79 FR 17339 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04932); amended June 30, 2015, at 80 FR 37365 (https://www.flrules.org/Gateway/reference.asp?No=Ref-06263); amended August 19, 2015, at 80 FR 50385 (https://www.flrules.org/Gateway/reference.asp?No=Ref-06258); amended October 26, 2015, at 80 FR 65470 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07816); amended December 1, 2015, at 80 FR 75178 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07798); amended December 4, 2015, at 80 FR 75817 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07817); amended August 30, 2016, at 81 FR 59800 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07789); except that the Secretary is not the Administrator for purposes of the authorities cited at 40 C.F.R. § 63.5(e), 40 C.F.R. § 63.5(f), 40 C.F.R. § 63.6(g), 40 C.F.R. § 63.6(h)(9), 40 C.F.R. § 63.6(j), 40 C.F.R. § 63.13, and 40 C.F.R. § 63.14.

2. through 5. No change.

(e) Appendices Adopted. The following appendices of 40 C.F.R. Part 63, revised as of July 1, 2009, or later as specifically indicated, are adopted and incorporated by reference:

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1. Appendix A, Test Methods; amended September 13, 2010, at 75 FR 55636 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720); amended February 27, 2014, 79 FR 11227 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04926); amended December 1, 2015, at 80 FR 75178 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07798); amended August 30, 2016, at 81 FR 59800 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07789).

2. through 5. No change.

(12) through (14) No change.

(15) Title 40, Code of Federal Regulations, Part 70, State Operating Permit Programs. The provisions of 40 C.F.R. Part 70, §§ 70.1 through 70.11, revised as of July 1, 2001; amended June 27, 2003, at 68 FR 38517; amended March 6, 2015, at FR 80 12263 (https://www.flrules.org/Gateway/reference.asp?No=Ref-06249); amended October 23, 2015, at 80 FR 64510 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07804); amended June 3, 2016, at 81 FR 35622 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07788); are adopted and incorporated by reference.

(16) through (22) No change.

(23) Title 40, Code of Federal Regulations, Part 81, Designation of Areas for Air Quality Planning Purposes.

(a) No change.

(b) 40 C.F.R. Part 81, Subpart C, Section 107 Attainment Status Designations, § 81.310, revised as of July 1, 2009; amended November 22, 2010, at 75 FR 71033 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720); amended November 22, 2011, at 75 FR 72097 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720); amended February 17, 2012, at 77 FR 9532 (http://www.flrules.org/Gateway/reference.asp?No=Ref-01720); amended May 21, 2012, at 77 FR 30087 (http://www.flrules.org/Gateway/reference.asp?No=Ref-02487); amended August 5, 2013, 78 FR 47191 (https://www.flrules.org/Gateway/reference.asp?No=Ref-04918); amended January 15, 2015, at 80 FR 2206 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07819); amended September 6, 2016, at 81 FR 61136 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07820); amended September 22, 2016, at 81 FR 65289 (https://www.flrules.org/Gateway/reference.asp?No=Ref-07821); is adopted and incorporated by reference.

(c) No change.

(24) through (27) No change.

Rulemaking Authority 403.061, 403.8055 FS. Law Implemented 403.031, 403.061, 403.087, 403.0872, 403.8055 FS.

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History–New 3-13-96, Amended 6-25-96, 10-7-96, 10-17-96, 12-20-96, 4-18-97, 6-18-97, 7-7-97, 10-3-97, 12-10-97, 3-2-98, 4-7-98, 5-20-98, 6-8-98, 10-19-98, 4-1-99, 7-1-99, 9-1-99, 10-1-99, 4-1-00, 10-1-00, 1-1-01, 8-1-01, 10-1-01, 4-1-02, 7-1-02, 10-1-02, 1-1-03, 4-1-03, 10-1-03, 1-1-04, 4-1-04, 7-1-04, 10-1-04, 1-1-05, 4-1-05, 7-1-05, 10-1-05, 1-1-06, 4-1-06, 7-1-06, 9-4-06, 9-6-06, 1-8-07, 1-31-07, 4-2-07, 5-31-07, 7-2-07, 10-1-07, 2-1-08, 7-1-08, 10-1-08, 10-6-08, 12-1-08, 11-18-09, 6-11-10, 7-1-10, 10-1-10, 12-30-10, 12-1-11, 12-1-12, 5-22-13, 12-17-13, 1-24-14, 1-14-15, 1-7-16,_____.

ED_001764_00013832

From: Long, Terri
To: Read, Hastings
Cc: Melnick, Benjamin
Subject: FW: 62-204.800 Reference Material for Rule Adoption Approved
Date: Wednesday, January 11, 2017 8:06:22 AM

FYI Copy has been saved in the Certification folder in the 2016 Fast Track Folder

From: FL-Rules@dos.state.fl.us [mailto:FL-Rules@dos.state.fl.us]
Sent: Monday, January 09, 2017 2:58 PM
To: Long, Terri <Terri.Long@dep.state.fl.us>
Cc: flrules@dos.state.fl.us
Subject: 62-204.800 Reference Material for Rule Adoption Approved

Dear terril:
The reference material for rule adoption you submitted has been approved by the Administrative Code and Register Staff.
The approved material is available in the Review/Modify Agency Reference Material list (Agency Main Menu page).
Rule Number: 62-204.800
Reference Number: Ref-07786; Reference Name: 40 CFR Part 51 Subpart F 2-25-16
Reference Number: Ref-07787; Reference Name: 40 CFR Part 51 Subpart F 8-1-16
Reference Number: Ref-07788; Reference Name: 40 CFR Part 51 Subpart I Part 52 Subpart A Part 70 6-3-16
Reference Number: Ref-07789; Reference Name: 40 CFR Parts 51, 60, 61 Multiple Subparts and Appendices 8-30-16
Reference Number: Ref-07791; Reference Name: 40 CFR Part 52, Subpart K 9-25-15
Reference Number: Ref-07792; Reference Name: 40 CFR Part 52, Subpart K 9-24-15
Reference Number: Ref-07793; Reference Name: 40 CFR Part 52 Subpart K 10-23-15
Reference Number: Ref-07794; Reference Name: 40 CFR Part 52 Subpart K 8-2-16
Reference Number: Ref-07795; Reference Name: 40 CFR Part 52 Subpart K 9-30-16
Reference Number: Ref-07796; Reference Name: 40 CFR Part 58 Subparts A, D, Appendices A, D 3-28-16
Reference Number: Ref-07797; Reference Name: 40 CFR Part 60 Subpart Da Part 63 Subpart UUUUU 4-6-16
Reference Number: Ref-07798; Reference Name: 40 CFR Part 60 Subparts J, Ja Part 63 Subparts A, U, CC, UUU 12-1-15
Reference Number: Ref-07799; Reference Name: 40 CFR Part 60 Subpart Ja Part 63 Subpart CC UUU 7-13-16
Reference Number: Ref-07800; Reference Name: 40 CFR Part 60 Subparts A, XXX 8-29-16
Reference Number: Ref-07801; Reference Name: 40 CFR Part 60 Subpart CCCC 6-23-16
Reference Number: Ref-07802; Reference Name: 40 CFR Part 60 Subpart IIII 7-7-16
Reference Number: Ref-07803; Reference Name: 40 CFR Part 60 Subparts A, OOOO, OOOOa 6-3-16
Reference Number: Ref-07804; Reference Name: 40 CFR Part 60, Subparts A, TTTT Part 70 10-23-15
Reference Number: Ref-07805; Reference Name: 40 CFR Part 60 Subparts A and Cf 8-29-16
Reference Number: Ref-07806; Reference Name: 40 CFR Part 60 Appendices B and F 7-7-15
Reference Number: Ref-07807; Reference Name: 40 CFR Part 60 Appendix B 7-17-15

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Reference Number: Ref-07808; Reference Name: 40 CFR Part 60 Appendix F 5-16-14
Reference Number: Ref-07809; Reference Name: 40 CFR Part 63 Subpart GG 12-7-15
Reference Number: Ref-07810; Reference Name: 40 CFR Part 63 Subpart GG 8-3-16
Reference Number: Ref-07811; Reference Name: 40 CFR Part 63 Subparts DDD, NNN 7-29-15
Reference Number: Ref-07812; Reference Name: 40 CFR Part 63 Subpart LLL 9-11-15
Reference Number: Ref-07813; Reference Name: 40 CFR Part 63 Subpart LLL 7-25-16
Reference Number: Ref-07814; Reference Name: 40 CFR Part 63 Subpart RRR 6-13-16
Reference Number: Ref-07815; Reference Name: 40 CFR Part 63 Subpart DDDDD 11-20-15
Reference Number: Ref-07816; Reference Name: 40 CFR Part 63 Subpart A, JJJJJ and KKKKK 10-26-15
Reference Number: Ref-07817; Reference Name: 40 CFR Part 63 Subpart A and KKKKK 12-4-15
Reference Number: Ref-07818; Reference Name: 40 CFR Part 63 Subpart JJJJJJ as of July 1, 2015
Reference Number: Ref-07819; Reference Name: 40 CFR Part 81 Subpart C 1-15-15
Reference Number: Ref-07820; Reference Name: 40 CFR Part 81 Subpart C 9-6-16
Reference Number: Ref-07821; Reference Name: 40 CFR Part 81 Subpart C 9-22-16

Click here to log in.

Administrative Code and Register Staff
Florida Department of State

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Public Participation

Notice of Opportunity to Submit Comments and Participate in Public Hearing

as a teleconference in order to permit maximum participation of the Probable Cause Panel or its counsel.
A copy of the agenda may be obtained by contacting: Deputy Clerk, Division of Real Estate, at (407)481-5662. Only public portions of the agenda are available upon request.
Pursuant to the provisions of the Americans with Disabilities Act, any person requiring special accommodations to participate in this workshop/meeting is asked to advise the agency at least 5 days before the workshop/meeting by contacting: Division of Real Estate, (407)481-5662. If you are hearing or speech impaired, please contact the agency using the Florida Relay Service, 1(800)955-8771 (TDD) or 1(800)955-8770 (Voice).

DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
Florida Real Estate Commission
The Florida Real Estate Commission announces a public meeting to which all persons are invited.
DATES AND TIMES: Tuesday, April 18, 2017, 8:30 a.m., ET, meeting will reconvene on Wednesday, April 19, 2017, 8:30 a.m., ET.
PLACE: Zora Neale Hurston Building, North Tower, Suite N901, 400 West Robinson Street, Orlando, Florida 32801
GENERAL SUBJECT MATTER TO BE CONSIDERED: Official business of Commission; topics include, but are not limited to, proposed legislation affecting Chapter 475, Part I, F.S., Chapter 61J2 rule discussion, budget discussions, escrow disbursement requests, recovery fund claims, education issues, petitions for declaratory statement, petitions for rule variance/waiver, disciplinary actions and real estate applications. All or part of this meeting may be conducted as a teleconference in order to permit maximum participation of the Commission members or its counsel.
A copy of the agenda may be obtained by contacting: Mike Davis at michael.davis@myfloridalicense.com.
Pursuant to the provisions of the Americans with Disabilities Act, any person requiring special accommodations to participate in this workshop/meeting is asked to advise the agency at least 5 days before the workshop/meeting by contacting: Division of Real Estate, (407)481-5662. If you are hearing or speech impaired, please contact the agency using the Florida Relay Service, 1(800)955-8771 (TDD) or 1(800)955-8770 (Voice).
If any person decides to appeal any decision made by the Board with respect to any matter considered at this meeting or hearing, he/she will need to ensure that a verbatim record of the proceeding is made, which record includes the testimony and evidence from which the appeal is to be issued.

DEPARTMENT OF ENVIRONMENTAL PROTECTION
The Florida Department of Environmental Protection, Florida Coastal Office announces a public meeting to which all persons are invited.
DATES AND TIMES: Wednesday, April 19, 2017, 9:00 a.m. – 5:00 p.m.; Thursday, April 20, 2017, 9:00 a.m. – 5:00 p.m.
PLACE: 3rd Floor Auditorium, Center of Excellence for Coral Reef Ecosystem Research, Nova Southeastern University Oceanographic Center, 8000 North Ocean Drive, Dania Beach, FL 33004
GENERAL SUBJECT MATTER TO BE CONSIDERED: The FDEP Coral Reef Conservation Program is holding its biannual, two-day meeting of its Technical Advisory Committee (TAC). The TAC will be advising the Southeast Florida Coral Reef Initiative (SEFCRI) on its mission to develop and support the implementation of an effective strategy to preserve and protect southeast Florida's coral reefs and associated reef resources, emphasizing balance between resource use and protection, in cooperation with all interested parties.
Specifically, the TAC will be reviewing and advising on the development of SEFCRI and TAC projects and project ideas.
A copy of the agenda may be obtained by contacting: David Cox, David.F.Cox@dep.state.fl.us, (561)681-6691.
Pursuant to the provisions of the Americans with Disabilities Act, any person requiring special accommodations to participate in this workshop/meeting is asked to advise the agency at least 48 hours before the workshop/meeting by contacting: David Cox at (561)681-6691. If you are hearing or speech impaired, please contact the agency using the Florida Relay Service, 1(800)955-8771 (TDD) or 1(800)955-8770 (Voice).

DEPARTMENT OF ENVIRONMENTAL PROTECTION
The Division of Air Resource Management announces a hearing to which all persons are invited.
DATE AND TIME: May 10, 2017, 10:00 a.m.
PLACE: Department of Environmental Protection, Bob Martinez Center, 2600 Blair Stone Road, Room 195, Tallahassee, Florida
GENERAL SUBJECT MATTER TO BE CONSIDERED: Pursuant to 40 C.F.R. 60.23, the Department of Environmental Protection (Department) announces the opportunity to offer comments and participate in a public hearing, if requested, on the proposed submission of Florida's State Plan for Municipal Solid Waste (MSW) Landfills to the U.S. Environmental Protection Agency (EPA) under the Clean Air Act. The Department is proposing to submit this State Plan so that Florida may enforce the Emission Guidelines promulgated by EPA on August 29, 2016, which set emissions limitations for MSW Landfills that commenced construction or modification on or before July 17, 2014. The proposed State Plan adopts the

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model rules contained in 40 C.F.R. Part 60, Subpart Cf, and contains information on the facilities subject to regulation under this subpart. Once EPA approves Florida's State Plan, the Department will be the agency tasked with ensuring that MSW Landfills subject to 40 C.F.R. Part 60, Subpart Cf, comply with the applicable emissions limitations. A public hearing will be held, if requested, at the date, time, and place given above. It is not necessary that the hearing be held or attended for persons to comment on the proposed State Plan. Any comments or requests for a public hearing must be submitted by letter or email to Hastings Read, Department of Environmental Protection, Division of Air Resource Management, 2600 Blair Stone Road, MS 5500, Tallahassee, Florida 32399-2400, or Hastings.Read@dep.state.fl.us, and received no later than May 8, 2017. If no request for a public hearing is received, the hearing will be cancelled, and notice of the cancellation will be posted at the following website: http://sharepoint.dep.state.fl.us/PublicNotices/default.aspx.

Persons may also contact: Mr. Read at (850)717-9017 to find out if the hearing has been cancelled. The materials comprising the proposed State Plan are accessible at the website above by clicking on the May 10, 2017, hearing link or at the following website: http://www.dep.state.fl.us/air/rules/regulatory.htm. The materials may also be inspected during normal business hours at Department's Division of Air Resource Management offices, 2600 Blair Stone Road, Tallahassee, Florida or accessed with the aid of any Department District Air Section or Department-approved local air pollution control office.

A copy of the agenda may be obtained by contacting: Mr. Read by letter or email at the above addresses or by calling (850)717-9017.

Pursuant to the provisions of the Americans with Disabilities Act, any person requiring special accommodations to participate in this workshop/meeting is asked to advise the agency at least 48 hours before the workshop/meeting by contacting: Terri Long at (850)717-9023 or Terri.Long@dep.state.fl.us. If you are hearing or speech impaired, please contact the agency using the Florida Relay Service, 1(800) 955-8771 (TDD) or 1(800) 955-8770 (Voice).

For more information, you may contact: Ms. Long by letter or email at the above addresses or by calling (850)717-9023.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

NOTICE OF CANCELLATION -- The Florida Communities Trust Governing Board announces the cancellation of a public meeting to which all persons are invited.

DATE AND TIME: April 13, 2017, 9:30 a.m. – CANCELLED

PLACE: Florida Department of Environmental Protection, Douglas Building, Conference Room A, 3900 Commonwealth Blvd., Tallahassee, Florida 32399; telephone conference toll-free: 1(888)670-3525, participant code: 2255967442, then #

GENERAL SUBJECT MATTER TO BE CONSIDERED: The FCT Governing Board to consider the minutes from the February 8, 2017, meetings, approval of UA17 final ranking list, amendment and restatement of perpetual conservation easement and amendment to grant award agreement submitted by Hillsborough County, and any other business deemed necessary has been cancelled.

For more information, you may contact: Linda Reeves, Florida Department of Environmental Protection, Office of Operations, Land and Recreation Grant Programs, 3900 Commonwealth Blvd., Mail Station 103, Tallahassee, Florida 32399, (850)245-2702, Linda.Reeves@dep.state.fl.us.

DEPARTMENT OF HEALTH

Board of Podiatric Medicine

The Board of Podiatric Medicine announces a telephone conference call to which all persons are invited.

DATE AND TIME: May 4, 2017, 8:00 a.m.

PLACE: Conference number: 1(888)670-3525, participant code: 7342425515

GENERAL SUBJECT MATTER TO BE CONSIDERED: Probable Cause Panel Meeting.

A copy of the agenda may be obtained at http://floridaspodiatricmedicine.gov/.

Pursuant to the provisions of the Americans with Disabilities Act, any person requiring special accommodations to participate in this workshop/meeting is asked to advise the agency at least 7 days before the workshop/meeting by contacting: Brandi.May@flhealth.gov. If you are hearing or speech impaired, please contact the agency using the Florida Relay Service, 1(800)955-8771 (TDD) or 1(800)955-8770 (Voice).

If any person decides to appeal any decision made by the Board with respect to any matter considered at this meeting or hearing, he/she will need to ensure that a verbatim record of the proceeding is made, which record includes the testimony and evidence from which the appeal is to be issued.

For more information, you may contact: Brandi.May@flhealth.gov.

DEPARTMENT OF HEALTH

Division of Environmental Health

RULE NO.: RULE TITLE:

64E-6.012 Standards for the Construction, Operation, and Maintenance of Aerobic Treatment Units

The Florida Department of Health announces a telephone conference call to which all persons are invited.

DATE AND TIME: April 21, 2017, 3:00 p.m., Eastern Time

PLACE: Conference call meeting; phone number: 1(888)670-3525, at prompt enter participant code: 552 583 4898 #

GENERAL SUBJECT MATTER TO BE CONSIDERED: The Technical Review and Advisory Panel will discuss numerous

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Notice to EPA Region 4 Administrator

Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Rick Scott
Governor

Carlos Lopez-Cantera
Lt. Governor

Ryan E. Matthews
Interim Secretary

Via U.S. Mail and Electronic Mail

April 7, 2017

Ms. Beverly Spagg, Chief
Air and EPCRA Enforcement Branch
United States Environmental Protection Agency - Region 4
Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, Georgia 30303-8909

Re: Air Program Pre-Hearing Submittal: Proposed 111(d) State Plan for Municipal Solid Waste Landfills implementing 40 C.F.R. Part 60, Subpart Cf.

Dear Ms. Spagg:

Notice is hereby given that, pursuant to 40 C.F.R. 60.23, the Florida Department of Environmental Protection (Department) is accepting comments and will hold a public hearing, if requested, on Florida's proposed 111(d) State Plan submittal for Municipal Solid Waste (MSW) Landfills. The notice of opportunity to submit comments and request a public hearing was published on April 7, 2017, in the Florida Administrative Register. The public hearing, if requested, will be held on May 10, 2017.

This State Plan submittal incorporates the August 29, 2016, promulgation of the Emission Guidelines for MSW Landfills, codified at 40 C.F.R. Part 60, Subpart Cf. 81 Fed. Reg. 59,276. The Department has identified 28 facilities that are subject to these regulations.

Copies of the public notice published in the Florida Administrative Register and the pre-hearing State Plan submittal are enclosed. These documents are submitted to you as notification to the Administrator pursuant to the requirement of 40 C.F.R. 60.23(c).

Your review and comments prior to the hearing will be appreciated. The Department respectfully requests that the U.S. Environmental Protection Agency provide any comments on this submittal by May 8, 2017.

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If you have any questions about this submittal, please contact Hastings Read at (850) 717-9017 or by email at Hastings.Read@dep.state.fl.us.

Sincerely,

Preston McLane, Deputy Director
Division of Air Resource Management

Enclosures

cc: Ken Mitchell, Special Assistant to the Director of the Air, Pesticides, and Toxics Management Division, EPA – Region 4
Jason Dressler, Environmental Engineer, EPA – Region 4
Mark Bloeth, Environmental Scientist, EPA – Region 4
Todd Russo, South Air Enforcement and Toxics Section, Section Chief, EPA – Region 4

Requests for Districts/Locals to Provide Assistance to Public

From: Long, Terri
To: Hamilton, Shawn; Strong, Greg; Prather, Jeff; Yeaman, Mary; Smith, Jennifer K.; Iglehart, Jon; "Fernandez, Lorenzo"; Melissa Long (melissal@coi.net); "campbell@epchc.org"; "Renee.Parker@ocfl.net"; Laxmana, Tallam@doh.state.fl.us; "John Hickey"; "lee@epchc.org"; "Waters, Jason"; "gonzaj@miamidade.gov"; satyal, AJ
Cc: Read, Hastings
Subject: Florida DEP - Notice of Proposed 111(d) Municipal Solid Waste Landfill (MSW) State Plan
Date: Friday, April 07, 2017 9:05:00 AM
Attachments: Notice of Hearing FAR 4-7-17.pdf

Notice is hereby given, that pursuant to 40 CFR 60.23, the Department of Environmental Protection (DEP) is accepting comments and will hold a public hearing, if requested, on the Department's proposed 111(d) Municipal Solid Waste Landfill (MSW) State Plan. Please find the attached notice of opportunity to offer comments and request a public hearing, which will be published on April 7, 2017, in the Florida Administrative Register. The public hearing, if requested, will be held May 10, 2017.

The materials comprising the proposed State Plan are posted at http://www.dep.state.fl.us/air/rules/regulatory.htm. Please assist any member of the public who may contact you asking to view these materials. In the event members of the public have substantive questions related to the proposed revision, please direct them to Hastings Read, hastings.read@dep.state.fl.us or (850) 717-9017.

Terri Long
Florida Department of Environmental Protection
Office of Business Planning
Division of Air Resource Management
Terri.long@dep.state.fl.us
(850) 717-9023

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Notifications to Other States

From:	Long, Terri
To:	"dallas_baker@deq.state.ms.us"; "karen.hays@dnr.state.ga.us"; "rwg@adem.state.al.us"
Cc:	Read, Hastings
Subject:	Florida DEP - Notice of Proposed 111(d) Municipal Solid Waste Landfill (MSW) State Plan
Date:	Friday, April 07, 2017 9:04:00 AM
Attachments:	Notice of Hearing FAR 4-7-17.pdf

Notice is hereby given, that pursuant to 40 CFR 60.23, the Department of Environmental Protection is accepting comments and will hold a public hearing, if requested, on the Department's proposed 111(d) Municipal Solid Waste Landfill (MSW) State Plan. Please find the attached notice of opportunity to offer comments and request a public hearing, which will be published on April 7, 2017, in the Florida Administrative Register. The public hearing, if requested, will be held May 10, 2017.

The materials comprising the proposed State Plan are posted at http://www.dep.state.fl.us/air/rules/regulatory.htm.

Terri Long
Florida Department of Environmental Protection
Office of Business Planning
Division of Air Resource Management
Terri.long@dep.state.fl.us
(850) 717-9023

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as a teleconference in order to permit maximum participation of the Probable Cause Panel or its counsel.

A copy of the agenda may be obtained by contacting: Deputy Clerk, Division of Real Estate, at (407)481-5662. Only public portions of the agenda are available upon request.

Pursuant to the provisions of the Americans with Disabilities Act, any person requiring special accommodations to participate in this workshop/meeting is asked to advise the agency at least 5 days before the workshop/meeting by contacting: Division of Real Estate, (407)481-5662. If you are hearing or speech impaired, please contact the agency using the Florida Relay Service, 1(800)955-8771 (TDD) or 1(800)955-8770 (Voice).

DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

Florida Real Estate Commission

The Florida Real Estate Commission announces a public meeting to which all persons are invited.

DATES AND TIMES: Tuesday, April 18, 2017, 8:30 a.m., ET; meeting will reconvene on Wednesday, April 19, 2017, 8:30 a.m., ET.

PLACE: Zora Neale Hurston Building, North Tower, Suite N901, 400 West Robinson Street, Orlando, Florida 32801

GENERAL SUBJECT MATTER TO BE CONSIDERED: Official business of Commission; topics include, but are not limited to, proposed legislation affecting Chapter 475, Part I, F.S., Chapter 61J2 rule discussion, budget discussions, escrow disbursement requests, recovery fund claims, education issues, petitions for declaratory statement, petitions for rule variance/waiver, disciplinary actions and real estate applications. All or part of this meeting may be conducted as a teleconference in order to permit maximum participation of the Commission members or its counsel.

A copy of the agenda may be obtained by contacting: Mike Davis at michael.davis@myfloridalicense.com.

Pursuant to the provisions of the Americans with Disabilities Act, any person requiring special accommodations to participate in this workshop/meeting is asked to advise the agency at least 5 days before the workshop/meeting by contacting: Division of Real Estate, (407)481-5662. If you are hearing or speech impaired, please contact the agency using the Florida Relay Service, 1(800)955-8771 (TDD) or 1(800)955-8770 (Voice).

If any person decides to appeal any decision made by the Board with respect to any matter considered at this meeting or hearing, he/she will need to ensure that a verbatim record of the proceeding is made, which record includes the testimony and evidence from which the appeal is to be issued.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

The Florida Department of Environmental Protection, Florida Coastal Office announces a public meeting to which all persons are invited.

DATES AND TIMES: Wednesday, April 19, 2017, 9:00 a.m. – 5:00 p.m.; Thursday, April 20, 2017, 9:00 a.m. – 5:00 p.m.

PLACE: 3rd Floor Auditorium, Center of Excellence for Coral Reef Ecosystem Research, Nova Southeastern University Oceanographic Center, 8000 North Ocean Drive, Dania Beach, FL 33004

GENERAL SUBJECT MATTER TO BE CONSIDERED: The FDEP Coral Reef Conservation Program is holding its biannual, two-day meeting of its Technical Advisory Committee (TAC). The TAC will be advising the Southeast Florida Coral Reef Initiative (SEFCRI) on its mission to develop and support the implementation of an effective strategy to preserve and protect southeast Florida's coral reefs and associated reef resources, emphasizing balance between resource use and protection, in cooperation with all interested parties.

Specifically, the TAC will be reviewing and advising on the development of SEFCRI and TAC projects and project ideas.

A copy of the agenda may be obtained by contacting: David Cox, David.F.Cox@dep.state.fl.us, (561)681-6691.

Pursuant to the provisions of the Americans with Disabilities Act, any person requiring special accommodations to participate in this workshop/meeting is asked to advise the agency at least 48 hours before the workshop/meeting by contacting: David Cox at (561)681-6691. If you are hearing or speech impaired, please contact the agency using the Florida Relay Service, 1(800)955-8771 (TDD) or 1(800)955-8770 (Voice).

DEPARTMENT OF ENVIRONMENTAL PROTECTION

The Division of Air Resource Management announces a hearing to which all persons are invited.

DATE AND TIME: May 10, 2017, 10:00 a.m.

PLACE: Department of Environmental Protection, Bob Martinez Center, 2600 Blair Stone Road, Room 195, Tallahassee, Florida

GENERAL SUBJECT MATTER TO BE CONSIDERED: Pursuant to 40 C.F.R. 60.23, the Department of Environmental Protection (Department) announces the opportunity to offer comments and participate in a public hearing, if requested, on the proposed submission of Florida's State Plan for Municipal Solid Waste (MSW) Landfills to the U.S. Environmental Protection Agency (EPA) under the Clean Air Act. The Department is proposing to submit this State Plan so that Florida may enforce the Emission Guidelines promulgated by EPA on August 29, 2016, which set emissions limitations for MSW Landfills that commenced construction or modification on or before July 17, 2014. The proposed State Plan adopts the

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model rules contained in 40 C.F.R. Part 60, Subpart Cf, and contains information on the facilities subject to regulation under this subpart. Once EPA approves Florida's State Plan, the Department will be the agency tasked with ensuring that MSW Landfills subject to 40 C.F.R. Part 60, Subpart Cf, comply with the applicable emissions limitations. A public hearing will be held, if requested, at the date, time, and place given above. It is not necessary that the hearing be held or attended for persons to comment on the proposed State Plan. Any comments or requests for a public hearing must be submitted by letter or email to Hastings Read, Department of Environmental Protection, Division of Air Resource Management, 2600 Blair Stone Road, MS 5500, Tallahassee, Florida 32399-2400, or Hastings.Read@dep.state.fl.us, and received no later than May 8, 2017. If no request for a public hearing is received, the hearing will be cancelled, and notice of the cancellation will be posted at the following website: http://sharepoint.dep.state.fl.us/PublicNotices/default.aspx.

Persons may also contact: Mr. Read at (850)717-9017 to find out if the hearing has been cancelled. The materials comprising the proposed State Plan are accessible at the website above by clicking on the May 10, 2017, hearing link or at the following website: http://www.dep.state.fl.us/air/rules/regulatory.htm. The materials may also be inspected during normal business hours at Department's Division of Air Resource Management offices, 2600 Blair Stone Road, Tallahassee, Florida or accessed with the aid of any Department District Air Section or Department-approved local air pollution control office.

A copy of the agenda may be obtained by contacting: Mr. Read by letter or email at the above addresses or by calling (850)717-9017.

Pursuant to the provisions of the Americans with Disabilities Act, any person requiring special accommodations to participate in this workshop/meeting is asked to advise the agency at least 48 hours before the workshop/meeting by contacting: Terri Long at (850)717-9023 or Terri.Long@dep.state.fl.us. If you are hearing or speech impaired, please contact the agency using the Florida Relay Service, 1(800) 955-8771 (TDD) or 1(800) 955-8770 (Voice).

For more information, you may contact: Ms. Long by letter or email at the above addresses or by calling (850)717-9023.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

NOTICE OF CANCELLATION -- The Florida Communities Trust Governing Board announces the cancellation of a public meeting to which all persons are invited.

DATE AND TIME: April 13, 2017, 9:30 a.m. – CANCELLED

PLACE: Florida Department of Environmental Protection, Douglas Building, Conference Room A, 3900 Commonwealth Blvd., Tallahassee, Florida 32399; telephone conference toll-free: 1(888)670-3525, participant code: 2255967442, then #

GENERAL SUBJECT MATTER TO BE CONSIDERED: The FCT Governing Board to consider the minutes from the February 8, 2017, meetings, approval of UA17 final ranking list, amendment and restatement of perpetual conservation easement and amendment to grant award agreement submitted by Hillsborough County, and any other business deemed necessary has been cancelled.

For more information, you may contact: Linda Reeves, Florida Department of Environmental Protection, Office of Operations, Land and Recreation Grant Programs, 3900 Commonwealth Blvd., Mail Station 103, Tallahassee, Florida 32399, (850)245-2702, Linda.Reeves@dep.state.fl.us.

DEPARTMENT OF HEALTH

Board of Podiatric Medicine

The Board of Podiatric Medicine announces a telephone conference call to which all persons are invited.

DATE AND TIME: May 4, 2017, 8:00 a.m.

PLACE: Conference number: 1(888)670-3525, participant code: 7342425515

GENERAL SUBJECT MATTER TO BE CONSIDERED: Probable Cause Panel Meeting.

A copy of the agenda may be obtained at http://floridaspodiatricmedicine.gov/,

Pursuant to the provisions of the Americans with Disabilities Act, any person requiring special accommodations to participate in this workshop/meeting is asked to advise the agency at least 7 days before the workshop/meeting by contacting: Brandi.May@flhealth.gov. If you are hearing or speech impaired, please contact the agency using the Florida Relay Service, 1(800)955-8771 (TDD) or 1(800)955-8770 (Voice).

If any person decides to appeal any decision made by the Board with respect to any matter considered at this meeting or hearing, he/she will need to ensure that a verbatim record of the proceeding is made, which record includes the testimony and evidence from which the appeal is to be issued.

For more information, you may contact: Brandi.May@flhealth.gov.

DEPARTMENT OF HEALTH

Division of Environmental Health

RULE NO.: RULE TITLE:

64E-6.012 Standards for the Construction, Operation, and Maintenance of Aerobic Treatment Units

The Florida Department of Health announces a telephone conference call to which all persons are invited.

DATE AND TIME: April 21, 2017, 3:00 p.m., Eastern Time

PLACE: Conference call meeting; phone number: 1(888)670-3525, at prompt enter participant code: 552 583 4898 #

GENERAL SUBJECT MATTER TO BE CONSIDERED: The Technical Review and Advisory Panel will discuss numerous

ED_001764_00013833

Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Rick Scott
Governor

Carlos Lopez-Cantera
Lt. Governor

Ryan E. Matthews
Interim Secretary

Via U.S. Mail and Electronic Mail

April 7, 2017

Ms. Beverly Spagg, Chief
Air and EPCRA Enforcement Branch
United States Environmental Protection Agency - Region 4
Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, Georgia 30303-8909

Re: Air Program Pre-Hearing Submittal: Proposed 111(d) State Plan for Municipal Solid Waste Landfills implementing 40 C.F.R. Part 60, Subpart Cf.

Dear Ms. Spagg:

Notice is hereby given that, pursuant to 40 C.F.R. 60.23, the Florida Department of Environmental Protection (Department) is accepting comments and will hold a public hearing, if requested, on Florida's proposed 111(d) State Plan submittal for Municipal Solid Waste (MSW) Landfills. The notice of opportunity to submit comments and request a public hearing was published on April 7, 2017, in the Florida Administrative Register. The public hearing, if requested, will be held on May 10, 2017.

This State Plan submittal incorporates the August 29, 2016, promulgation of the Emission Guidelines for MSW Landfills, codified at 40 C.F.R. Part 60, Subpart Cf. 81 Fed. Reg. 59,276. The Department has identified 28 facilities that are subject to these regulations.

Copies of the public notice published in the Florida Administrative Register and the pre-hearing State Plan submittal are enclosed. These documents are submitted to you as notification to the Administrator pursuant to the requirement of 40 C.F.R. 60.23(c).

Your review and comments prior to the hearing will be appreciated. The Department respectfully requests that the U.S. Environmental Protection Agency provide any comments on this submittal by May 8, 2017.

If you have any questions about this submittal, please contact Hastings Read at (850) 717-9017 or by email at Hastings.Read@dep.state.fl.us.

Sincerely,

Preston McLane, Deputy Director
Division of Air Resource Management

Enclosures

cc: Ken Mitchell, Special Assistant to the Director of the Air, Pesticides, and Toxics Management Division, EPA – Region 4
Jason Dressler, Environmental Engineer, EPA – Region 4
Mark Bloeth, Environmental Scientist, EPA – Region 4
Todd Russo, South Air Enforcement and Toxics Section, Section Chief, EPA – Region 4

To: McNeal, Dave[Mcneal.Dave@epa.gov]
From: Russo, Todd
Sent: Mon 6/5/2017 6:45:14 PM
Subject: FW: Pre-draft copy of Proposed Landfill 111(d) Rule
1200-03-07 2017 Amendments 01-11-2017.docx
1200-03-07 2017 Amendments redline 01-11-2017.docx

Hey David,

Please call me about this when you have a moment.

Thanks!

Todd Russo
U.S. EPA Region 4
South Air Enforcement and Toxics Section
Tel: (404) 562-9194
Fax: (404) 562-9163

CONFIDENTIALITY NOTICE: This message and any attachments from the U.S. Environmental Protection Agency may contain CONFIDENTIAL and legally protected information. If you are not the addressee or intended recipient, please do not read, print, copy, use or disclose this communication to others; also, please notify the sender by replying to this message, and then delete it from your system. Thank you.

From: Dressler, Jason
Sent: Monday, June 05, 2017 11:37 AM
To: McNeal, Dave <Mcneal.Dave@epa.gov>
Cc: Mitchell, Ken <Mitchell.Ken@epa.gov>; Russo, Todd <Russo.Todd@epa.gov>; Frizzell, Gretchen <Frizzell.Gretchen@epa.gov>; Cobb, Brandon <cobb.brandon@epa.gov>; Arias, Megan <arias.megan@epa.gov>; Griffith, Carrie <griffith.carrie@epa.gov>; Bloeth, Mark <Bloeth.Mark@epa.gov>; Dubose, Dick <DuBose.Dick@epa.gov>
Subject: FW: Pre-draft copy of Proposed Landfill 111(d) Rule

David,

Travis Blake of TDEC forwarded me the attached pre-draft copy of Tennessee's proposed 111(d) plan for MSW Landfills. Just as they did for their proposed CISWI state plan earlier this year, they are providing us with an opportunity to provide any comments before they publish their notice of public hearing and put the proposed plan out for public comment later this summer. It appears to me that they are proposing to primarily IBR Subpart XXX, which I thought was a problem for the MSW Landfill emission guideline because it doesn't include a model rule. If that's the case, then any feedback we can provide before the public notice is issued may allow them to make changes to their rule language. With the July 4th holiday falling on Tuesday this year, their request for comments by July 5th probably means that we would need to have a comment letter signed by the end of June.

I'll send a note back to Travis to let him know that you are our main point of contact for MSW Landfills.

Jason

From: Travis Blake [mailto:Travis.Blake@tn.gov]
Sent: Friday, June 02, 2017 2:35 PM
To: Dressler, Jason <Dressler.Jason@epa.gov>
Cc: Paul LaRock <Paul.LaRock@tn.gov>; Malcolm Butler <Malcolm.Butler@tn.gov>; James Johnston <James.Johnston@tn.gov>
Subject: Pre-draft copy of Proposed Landfill 111(d) Rule

A pre-draft copy of Tennessee's proposed 111(d) plan for municipal solid waste landfills (40 CFR 60 Subpart Cf) is attached. We are planning to publish the attached hearing notice in early July and hold a public hearing for the proposed rule in September. To ensure that we can address any comments/concerns in a timely manner, please submit any comments on the pre-draft by July 5, 2017. If you have any questions or comments on the attached documents, please contact me. Thanks.

TN Department of Environment & Conservation

Travis J. Blake| TDEC Environmental Consultant 3

Division of Air Pollution Control

William R. Snodgrass Tennessee Tower, 15th Floor

312 Rosa L. Parks Avenue, Nashville, TN 37243

p. (615) 532-0617

travis.blake@tn.gov

tn.gov/environment

We value your opinion. Please take a few minutes to complete our customer satisfaction survey.

Department of State
Division of Publications
312 Rosa L. Parks, 8th Floor Snodgrass/TN Tower
Nashville, TN 37243
Phone: 615.741.2650
Email: publications.information@tn.gov

For Department of State Use Only

Sequence Number: _____
Notice ID(s): _____
File Date: _____

Notice of Rulemaking Hearing

Hearings will be conducted in the manner prescribed by the Uniform Administrative Procedures Act, T.C.A. § 4-5-204. For questions and copies of the notice, contact the person listed below.

Agency/Board/Commission:	Environment & Conservation
Division:	Air Pollution Control
Contact Person:	Travis Blake
Address:	William R. Snodgrass Tennessee Tower 312 Rosa L. Parks Avenue, 15th Floor Nashville, TN 37243
Phone:	(615) 532-0617
Email:	travis.blake@tn.gov

Any Individuals with disabilities who wish to participate in these proceedings (to review these filings) and may require aid to facilitate such participation should contact the following at least 10 days prior to the hearing:

ADA Contact:	ADA Coordinator
Address:	William R. Snodgrass Tennessee Tower 312 Rosa L. Parks Avenue, 22nd Floor Nashville, Tennessee 37243
Phone:	1-866-253-5827 (toll free) or 615-532-0200 Hearing impaired callers may use the TN Relay Service 1-800-848-0298
Email:	Beverly.Evans@tn.gov

Hearing Location(s) (for additional locations, copy and paste table)

Address 1:	Conference Room A		
Address 2:	William R. Snodgrass Tennessee Tower 312 Rosa L. Parks Avenue, 15th Floor		
City:	Nashville, Tennessee		
Zip:	37243		
Hearing Date :	To be determined		
Hearing Time:	To be determined	_X_CST/CDT ___EST/EDT	

Additional Hearing Information:

There will be a public hearing before the Technical Secretary of the Tennessee Air Pollution Control Board to consider the promulgation of amendments to the Tennessee Air Pollution Control Regulations and the State Implementation Plan pursuant to Tennessee Code Annotated, Section 68-201-105. The comments received at this hearing will be presented to the Tennessee Air Pollution Control Board for their consideration in regards to the proposed regulatory amendments. The hearing will be conducted in the manner prescribed by the Uniform Administrative Procedures Act, T.C.A. §§ 4-5-201 et seq. and will take place in the 15th Floor Conference Room A, William R. Snodgrass Tennessee Tower, located at 312 Rosa L. Parks Avenue, Nashville, Tennessee 37243 at 9:30 AM CDT on **********. Written comments will be included in the hearing records if received by the close of business on **********, at the office of the Technical Secretary, Tennessee Air Pollution Control Board, William R. Snodgrass Tennessee Tower, located at 312 Rosa L. Parks Avenue 15th Floor, Nashville, Tennessee 37243. Additionally, comments may be submitted via attachments through electronic mail until the close of

business on **********. Comments may be submitted via e-mail to Air.Pollution.Control@tn.gov.

Any individuals with disabilities who wish to participate in these proceedings or to review these filings should contact the Tennessee Department of Environment and Conservation to discuss any auxiliary aids or services needed to facilitate such participation. Such initial contact may be in person, by writing, telephone, or other means, and should be made no less than 10 days prior to **********, or the date such party intends to review such filings, to allow time to provide such aid or service. Contact the Tennessee Department of Environment and Conservation ADA Coordinator, William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue 22nd Floor, Nashville, TN 37243, (866) 253-5827. Hearing impaired callers may use the Tennessee Relay Service, (800) 848-0298.

If you have any questions about the origination of these rule changes, you may contact Travis Blake at (615) 532-0617. For complete copies of the text of the notice, please contact Travis Blake, Department of Environment and Conservation, William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue 15th Floor, Nashville, TN 37243 or via e-mail at travis.blake@tn.gov.

Tennessee proposes to amend Rule 1200-03-07-.07 (General Provisions and Applicability for Process Gaseous Emission Standards) by amending Subparagraphs (7) and (9). The proposed amendments would implement 40 CFR 60 Subpart Cf (Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills) and would apply to municipal solid waste landfills that commenced construction, reconstruction or modification on or before July 17, 2014. The proposed changes would also repeal the adoption by reference of 40 CFR 60 Subpart WWW (Standards of Performance for Municipal Solid Waste Landfills) and the existing 111(d) plan implementing 40 CFR 60 Subpart Cc (Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills).

Specific changes are indicated in a redline/strikeout version available at http://www.tn.gov/environment/topic/ppo-air. Interested parties may submit comments on these proposed revisions.

Revisions considered at this hearing may be adopted by the Tennessee Air Pollution Control Board under T.C.A. 68-201-105, the Board general authority to promulgate rules. All persons interested in the air quality of the State of Tennessee are urged to attend and will be afforded the opportunity to present testimony to the hearing officer regarding the proposed revisions to the State Implementation Plan. Any person desiring to present lengthy comments should be prepared at the hearing to offer a written statement to be incorporated into the record. Written statements not presented at the hearings will only be considered part of the records if received by 4:30 PM on **********, at the office of the Technical Secretary, Tennessee Air Pollution Control Board, William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue 15th Floor, Nashville, TN 37243.

Revision Type (check all that apply):

_X_ Amendment
____ New
____ Repeal

Rule(s) (**ALL** chapters and rules contained in filing must be listed. If needed, copy and paste additional tables to accommodate more than one chapter. Please enter only **ONE** Rule Number/Rule Title per row.)

Chapter Number	**Chapter Title**
1200-03-07	Process Emission Standards
Rule Number	**Rule Title**
1200-03-07-.07	General Provisions and Applicability for Process Gaseous Emission Standards

(Place substance of rules and other info here. Statutory authority must be given for each rule change. For information on formatting rules go to http://state.tn.us/sos/rules/1360/1360.htm)

Chapter 1200-03-07
Process Emission Standards

Amendments

Paragraph (7) of Rule 1200-03-07-.07 General Provisions and Applicability for Process Gaseous Emission Standards is amended by deleting it in its entirety and substituting instead the following:

(7) Each municipal solid waste landfill for which construction, reconstruction or modification was commenced on or before ~~May 30, 1991~~ July 17, 2014 that has accepted waste at any time since November 8, 1987 ~~and each municipal solid waste landfill for which construction, reconstruction or modification was commenced before May 30, 1991 that~~ or has additional design capacity available for future waste deposition, shall satisfy the standards and requirements as follow:

(a) For what follows, "Administrator" means the Technical Secretary of the Tennessee Air Pollution Control Board in those cases for which Authority to implement and enforce provisions of the rule have been delegated to Tennessee. Otherwise, “Administrator” means the Administrator of the United States Environmental Protection Agency. “State” means the State of Tennessee.”

(b) For the purpose of this paragraph, the definitions listed in 40 CFR Part 60 Subpart ~~WWW, § 60.751~~ XXX, § 60.761 apply.

(c) All facilities subject to this paragraph shall comply with the provisions of 40 CFR Part 60 Subpart ~~WWW, §§ 60.752 through 60.759~~ XXX, §§ 60.762 through 60.769, except as listed in Parts 1 ~~and 2~~ through 4 of this subparagraph.

1. The initial design capacity report required by ~~§ 60.757(a)~~ § 60.767(a) and the initial nonmethane organic compounds (NMOC) emission rate report required by § 60.767(b) ~~shall be submitted no later than March 28, 1999. This submittal date shall replace the submittal dates listed in § 60.757(a)(1)(i) through (ii)~~ are due 90 days after the effective date of EPA approval of the state's plan under section 111(d) of the Clean Air Act.

2. Reserved. ~~The initial NMOC emission rate report required by § 60.757(b) shall be submitted with the initial design capacity report required under Part 1 of this subparagraph. The date for the submittal of the initial NMOC emission rate report as listed in § 60.757(b)(1)(i) shall be replaced by the requirement to submit this report no later than March 28, 1999.~~

3. When an MSW landfill subject to this paragraph is in the closed landfill subcategory, as defined in 40 CFR §60.41f, the owner or operator is not subject to the following reports, provided the owner or operator submitted these reports on or before July 17, 2014 under the provisions of 40 CFR 60 Subpart WWW; 40 CFR 62, Subpart GGG; or a state plan implementing 40 CFR 60 Subpart Cc:

(i) Initial design capacity report specified in §60.38f(a).

(ii) Initial or subsequent NMOC emission rate report specified in §60.38f(c), provided that the most recent NMOC emission rate report indicated the NMOC emissions were below 50 Mg/yr.

(iii) Collection and control system design plan specified in §60.38f(d).

(iv) Closure report specified in §60.38f(f).

(v) Equipment removal report specified in §60.38f(g).

(vi) Initial annual report specified in §60.38f(h).

(vii) Initial performance test report in §60.38f(i).

4. For any affected facility for which higher operating temperatures were previously approved at one or more wellheads pursuant to § 60.753(c):

(i) Pursuant to §60.767(c)(2), the established higher operating temperatures must be submitted in the gas collection and control system (GCCS) design plan as alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions of §§ 60.763 through 60.768.

(ii) The facility must provide the data required by § 60.763(c) to support the higher operating temperature.

(iii) The Technical Secretary will review the information and approve or disapprove the higher operating temperatures, or request that additional information be submitted.

(iv) Any higher operating temperatures established pursuant to §60.753(c) will remain valid until:

(I) Final disapproval of any requested alternatives, or

(II) The design plan due date, if higher operating temperatures are not requested in the design plan.

(d) ~~Adopted herein by reference are the Federal regulations in Paragraph (9) of this rule as appearing in Subpart WWW of 40 CFR Part 60. Source: (published in the Federal Register / Vol. 61, No. 49 / Tuesday, March 12, 1996 / Rules and Regulations 9919), unless otherwise noted and as amended at 63 FR 32750 - 32753, June 16, 1998; 64 FR 9262, February 24, 1999; 65 FR 18908 and 18909, April 10, 2000; 65 FR 61778, October 17, 2000; 71 FR 55127, September 21, 2006.~~ The provisions of 40 CFR 60 Subpart XXX (Standards of Performance for Municipal Solid Waste Landfills That Commenced Construction, Reconstruction, or Modification After July 17, 2014) are hereby adopted by reference as published in the August 29, 2016 edition of the Federal Register (81 FR 59368).

(e) For any facility subject to this paragraph, compliance with 40 CFR 60 Subpart XXX, as adopted herein, ensures compliance with the requirements codified in 40 CFR 60 Subparts Cc, Cf, and WWW.

Authority: T.C.A. §§ 68-201-101 et seq. and 4-5-201 et seq.

Paragraph (9) of Rule 1200-03-07-.07 General Provisions and Applicability for Process Gaseous Emission Standards is amended by deleting it in its entirety and substituting instead the following:

(9) Reserved. ~~Subpart WWW - Standards of Performance for Municipal Solid Waste Landfills~~

~~Sec.~~
~~60.750 Applicability, designation of affected facility, and delegation of authority.~~
~~60.751 Definitions.~~
~~60.752 Standards for air emissions from municipal solid waste landfills.~~
~~60.753 Operational standards for collection and control systems.~~
~~60.754 Test methods and procedures.~~
~~60.755 Compliance provisions.~~
~~60.756 Monitoring of operations.~~
~~60.757 Reporting requirements.~~
~~60.758 Recordkeeping requirements.~~
~~60.759 Specifications for active collection systems.~~

~~Authority: 42 U.S.C. 7401, 7411, 7414, 7416 and 7601.~~

~~Subpart WWW - Standards of Performance for Municipal Solid Waste Landfills~~

~~§ 60.750 Applicability, designation of affected facility, and delegation of authority.~~

~~(a) The provisions of this subpart apply to each municipal solid waste landfill that commenced construction, reconstruction or modification or began accepting waste on or after May 30, 1991. Physical or operational changes made to an existing MSW landfill solely to comply with Subpart Cc of this part are not considered construction, reconstruction, or modification for the purposes of this section.~~

~~(b) The following authorities shall be retained by the Administrator and not transferred to the State: §60.754(a)(5).~~

~~(c) Activities required by or conducted pursuant to a CERCLA, RCRA, or State remedial action are not considered construction, reconstruction, or modification for purposes of this subpart.~~

~~§ 60.751 Definitions.~~

~~As used in this subpart, all terms not defined herein shall have the meaning given them in the Act or in subpart A of this part.~~

~~"Active collection system" means a gas collection system that uses gas mover equipment.~~

~~"Active landfill" means a landfill in which solid waste is being placed or a landfill that is planned to accept waste in the future.~~

~~"Closed landfill" means a landfill in which solid waste is no longer being placed, and in which no additional solid wastes will be placed without first filing a notification of modification as prescribed under § 60.7(a)(4). Once a notification of modification has been filed, and additional solid waste is placed in the landfill, the landfill is no longer closed.~~

~~"Closure" means that point in time when a landfill becomes a closed landfill.~~

~~"Commercial solid waste" means all types of solid waste generated by stores, offices, restaurants, warehouses, and other nonmanufacturing activities, excluding residential and industrial wastes.~~

~~"Controlled landfill" means any landfill at which collection and control systems are required under this subpart as a result of the nonmethane organic compounds emission rate. The landfill is considered controlled at the time a collection and control system design plan is submitted in compliance with § 60.752(b)(2)(i).~~

~~"Design capacity" means the maximum amount of solid waste a landfill can accept, as indicated in terms of volume or mass in the most recent permit issued by the State, local, or Tribal agency responsible for regulating the landfill, plus any in-place waste not accounted for in the most recent permit. If the owner or operator chooses to convert the design capacity from volume to mass or from mass to volume to demonstrate its design capacity is less than 2.5 million megagrams or 2.5 million cubic meters, the calculation must include a site specific density, which must be recalculated annually.~~

~~"Disposal facility" means all contiguous land and structures, other appurtenances, and improvements on the land used for the disposal of solid waste.~~

~~"Emission rate cutoff" means the threshold annual emission rate to which a landfill compares its estimated emission rate to determine if control under the regulation is required.~~

~~"Enclosed combustor" means an enclosed firebox which maintains a relatively constant limited peak temperature generally using a limited supply of combustion air. An enclosed flare is considered an enclosed combustor.~~

~~"Flare" means an open combustor without enclosure or shroud.~~

~~"Gas mover equipment" means the equipment (i.e., fan, blower, compressor) used to transport landfill gas through the header system.~~

~~"Household waste" means any solid waste (including garbage, trash, and sanitary waste in septic tanks) derived from households (including, but not limited to, single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas).~~

~~"Industrial solid waste" means solid waste generated by manufacturing or industrial processes that is not a hazardous waste regulated under Subtitle C of the Resource Conservation and Recovery Act, parts 264 and 265 of this title. Such waste may include, but is not limited to, waste resulting from the following manufacturing processes: electric power generation; fertilizer/agricultural chemicals; food and related products/by-products; inorganic chemicals; iron and steel manufacturing; leather and leather products; nonferrous metals manufacturing/foundries; organic chemicals; plastics and resins manufacturing; pulp and paper industry; rubber and miscellaneous plastic products; stone, glass, clay, and concrete products; textile manufacturing; transportation equipment; and water treatment. This term does not include mining waste or oil and gas waste.~~

~~"Interior Well" means any well or similar collection component located inside the perimeter of the landfill. A perimeter well located outside the landfilled waste is not an interior well.~~

~~"Landfill" means an area of land or an excavation in which wastes are placed for permanent disposal, and that is not a land application unit, surface impoundment, injection well, or waste pile as those terms are defined under § 257.2 of this title.~~

~~"Lateral expansion" means a horizontal expansion of the waste boundaries of an existing MSW landfill. A lateral expansion is not a modification unless it results in an increase in the design capacity of the landfill.~~

~~"Modification" means an increase in the permitted volume design capacity of the landfill by either horizontal or vertical expansion based on its permitted design capacity as of May 30, 1991. Modification does not occur until the owner or operator commences construction on the horizontal or vertical expansion.~~

~~"Municipal solid waste landfill" or "MSW landfill" means an entire disposal facility in a contiguous geographical space where household waste is placed in or on land. An MSW landfill may also receive other types of RCRA Subtitle D wastes (§ 257.2 of this title) such as commercial solid waste, nonhazardous sludge, conditionally exempt small quantity generator waste, and industrial solid waste. Portions of an MSW landfill may be separated by access roads. An MSW landfill may be publicly or privately owned. An MSW landfill may be a new MSW landfill, an existing MSW landfill, or a lateral expansion.~~

~~"Municipal solid waste landfill emissions" or "MSW landfill emissions" means gas generated by the decomposition of organic waste deposited in an MSW landfill or derived from the evolution of organic compounds in the waste.~~

~~"NMOC" means nonmethane organic compounds, as measured according to the provisions of § 60.754.~~

~~"Nondegradable waste" means any waste that does not decompose through chemical breakdown or microbiological activity. Examples are, but are not limited to, concrete, municipal waste combustor ash, and metals.~~

~~"Passive collection system" means a gas collection system that solely uses positive pressure within the landfill to move the gas rather than using gas mover equipment.~~

~~"Sludge" means any solid, semisolid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility, exclusive of the treated effluent from a wastewater treatment plant.~~

~~"Solid waste" means any garbage, sludge from a wastewater treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges that are point sources subject to permits under 33 U.S.C. 1342, or source, special nuclear, or by-product material as defined by the Atomic Energy Act of 1954, as amended (42 U.S.C 2011 et seq.).~~

~~"Sufficient density" means any number, spacing, and combination of collection system components, including vertical wells, horizontal collectors, and surface collectors, necessary to maintain emission and migration control as determined by measures of performance set forth in this part.~~

~~"Sufficient extraction rate" means a rate sufficient to maintain a negative pressure at all wellheads in the collection system without causing air infiltration, including any wellheads connected to the system as a result of expansion or excess surface emissions, for the life of the blower.~~

~~§ 60.752 Standards for air emissions from municipal solid waste landfills.~~

~~(a) Each owner or operator of an MSW landfill having a design capacity less than 2.5 million megagrams by mass or 2.5 million cubic meters by volume shall submit an initial design capacity report to the Administrator as provided in § 60.757(a). The landfill may calculate design capacity in either megagrams or cubic meters for comparison with the exemption values. Any density conversions shall be documented and submitted with the report. Submittal of the initial design capacity report shall fulfill the requirements of this subpart except as provided for in paragraphs (a)(1) and (a)(2) of this section.~~

~~1. The owner or operator shall submit to the Administrator an amended design capacity report, as provided for in § 60.757(a)(3).~~

~~2. When an increase in the maximum design capacity of a landfill exempted from the provisions of § 60.752(b) through § 60.759 of this subpart on the basis of the design capacity exemption in paragraph (a) of this section results in a revised maximum design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters, the owner or operator shall comply with the provision of paragraph (b) of this section.~~

~~(b) Each owner or operator of an MSW landfill having a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters, shall either comply with paragraph (b)(2) of this section or calculate an NMOC emission rate for the landfill using the procedures specified in § 60.754. The NMOC emission rate shall be recalculated annually, except as provided in § 60.757(b)(1)(ii) of this subpart. The owner or operator of an MSW landfill subject to this subpart with a design capacity greater than or equal to 2.5 million megagrams and 2.5 million cubic meters is subject to part 70 or 71 permitting requirements.~~

~~1. If the calculated NMOC emission rate is less than 50 megagrams per year, the owner or operator shall:~~

~~(i) Submit an annual emission report to the Administrator, except as provided for in § 60.757(b)(1)(ii); and~~

~~(ii) Recalculate the NMOC emission rate annually using the procedures specified in § 60.754(a)(1) until such time as the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, or the landfill is closed.~~

~~(A) If the NMOC emission rate, upon recalculation required in paragraph (b)(1)(ii) of this section, is equal to or greater than 50 megagrams per year, the owner or operator shall install a collection and control system in compliance with paragraph (b)(2) of this section.~~

~~(B) If the landfill is permanently closed, a closure notification shall be submitted to the Administrator as provided for in § 60.757(d).~~

~~2. If the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, the owner or operator shall:~~

~~(i) Submit a collection and control system design plan prepared by a professional engineer to the Administrator within 1 year:~~

~~(A) The collection and control system as described in the plan shall meet the design requirements of paragraph (b)(2)(ii) of this section.~~

~~(B) The collection and control system design plan shall include any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions of §§ 60.753 through 60.758 proposed by the owner or operator.~~

~~(C) The collection and control system design plan shall either conform with specifications for active collection systems in § 60.759 or include a demonstration to the Administrator's satisfaction of the sufficiency of the alternative provisions to § 60.759.~~

~~(D) The Administrator shall review the information submitted under paragraphs (b)(2)(i)(A), (B) and (C) of this section and either approve it, disapprove it, or request that additional information be submitted. Because of the many site-specific factors involved with landfill gas system design, alternative systems may be necessary. A wide variety of system designs are possible, such as vertical wells, combination horizontal and vertical collection systems, or horizontal trenches only, leachate collection components, and passive systems.~~

~~(ii) Install a collection and control system that captures the gas generated within the landfill as required by paragraphs (b)(2)(ii)(A) or (B) and (b)(2)(iii) of this section within 30 months after the first annual report in which the emission rate equals or exceeds 50 megagrams per year, unless Tier 2 or Tier 3 sampling demonstrates that the emission rate is less than 50 megagrams per year, as specified in &60.757(c)(1) or (2).~~

~~(A) An active collection system shall:~~

~~(1) Be designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control or treatment system equipment;~~

~~(2) Collect gas from each area, cell, or group of cells in the landfill in which the initial solid waste has been placed for a period of:~~

~~(i) 5 years or more if active; or~~

~~(ii) 2 years or more if closed or at final grade;~~

~~(3) Collect gas at a sufficient extraction rate;~~

~~(4) Be designed to minimize off-site migration of subsurface gas.~~

~~(B) A passive collection system shall:~~

~~(1) Comply with the provisions specified in paragraphs (b)(2)(ii)(A)(1),(2), and (2)(ii)(A)(4) of this section.~~

~~(2) Be installed with liners on the bottom and all sides in all areas in which gas is to be collected. The liners shall be installed as required under § 258.40 of this title.~~

~~(iii) Route all the collected gas to a control system that complies with the requirements in either paragraph (b)(2)(iii)(A), (B) or (C) of this section.~~

~~(A) An open flare designed and operated in accordance with § 60.18 except as noted in §60.754(e);~~

~~(B) A control system designed and operated to reduce NMOC by 98 weight-percent, or, when an enclosed combustion device is used for control, to either reduce NMOC by 98 weight percent or reduce the outlet NMOC concentration to less than 20 parts per million by volume, dry basis as hexane at 3 percent oxygen. The reduction efficiency or parts per million by volume shall be established by an initial performance test to be completed no later than 180 days after the initial startup of the approved control system using the test methods specified in § 60.754(d).~~

~~(1) If a boiler or process heater is used as the control device, the landfill gas stream shall be introduced into the flame zone.~~

~~(2) The control device shall be operated within the parameter ranges established during the initial or most recent performance test. The operating parameters to be monitored are specified in § 60.756;~~

~~(C) Route the collected gas to a treatment system that processes the collected gas for subsequent sale or use. All emissions from any atmospheric vent from the gas treatment system shall be subject to the requirements of paragraph (b)(2)(iii)(A) or (B) of this section.~~

~~(iv) Operate the collection and control device installed to comply with this subpart in accordance with the provisions of § § 60.753, 60.755 and 60.756.~~

~~(v) The collection and control system may be capped or removed provided that all the conditions of paragraphs (b)(2)(v)(A), (B), and (C) of this section are met:~~

~~(A) The landfill shall be a closed landfill as defined in §60.751 of this subpart. A closure report shall be submitted to the Administrator as provided in § 60.757(d);~~

~~(B) The collection and control system shall have been in operation a minimum of 15 years; and~~

~~(C) Following the procedures specified in § 60.754(b) of this subpart, the calculated NMOC gas produced by the landfill shall be less than 50 megagrams per year on three successive test dates. The test dates shall be no less than 90 days apart, and no more than 180 days apart.~~

~~(c) For purposes of obtaining an operating permit under title V of the Act, the owner or operator of a MSW landfill subject to this subpart with a design capacity less than 2.5 million megagrams or 2.5 million cubic meters is not subject to the requirement to obtain an operating permit for the landfill under part 70 or 71 of this chapter, unless the landfill is otherwise subject to either part 70 or 71. For purposes of submitting a timely application for an operating permit under part 70 or 71, the owner or operator of a MSW landfill subject to this subpart with a design capacity greater than or equal to 2.5 million megagrams and 2.5 million cubic meters, and not otherwise subject to either part 70 or 71, becomes subject to the requirements of §§70.5(a)(1)(i) or 71.5(a)(1)(i) of this chapter, regardless of when the design capacity report is actually submitted, no later than:~~

~~1. June 10, 1996 for MSW landfills that commenced construction, modification, or reconstruction on or after May 30, 1991 but before March 12, 1996;~~

~~2. Ninety days after the date of commenced construction, modification, or reconstruction for MSW landfills that commence construction, modification, or reconstruction on or after March 12, 1996.~~

~~(d) When a MSW landfill subject to this subpart is closed, the owner or operator is no longer subject to the requirement to maintain an operating permit under part 70 or 71 of this chapter for the landfill if the landfill is not otherwise subject to the requirements of either part 70 or 71 and if either of the following conditions are met:~~

~~1. The landfill was never subject to the requirement for a control system under paragraph (b)(2) of this section; or~~

~~2. The owner or operator meets the conditions for control system removal specified in paragraph (b)(2)(v) of this section.~~

~~§ 60.753 Operational standards for collection and control systems.~~

~~Each owner or operator of an MSW landfill gas collection and control system used to comply with the provisions of § 60.752(b)(2)(ii) of this subpart shall:~~

~~(a) Operate the collection system such that gas is collected from each area, cell, or group of cells in the MSW landfill in which solid waste has been in place for:~~

~~1. 5 years or more if active; or~~

~~2. 2 years or more if closed or at final grade;~~

~~(b) Operate the collection system with negative pressure at each wellhead except under the following conditions:~~

~~1. A fire or increased well temperature. The owner or operator shall record instances when positive pressure occurs in efforts to avoid a fire. These records shall be submitted with the annual reports as provided in § 60.757(f)(1);~~

~~2. Use of a geomembrane or synthetic cover. The owner or operator shall develop acceptable pressure limits in the design plan;~~

~~3. A decommissioned well. A well may experience a static positive pressure after shut down to accommodate for declining flows. All design changes shall be approved by the Administrator;~~

~~(c) Operate each interior wellhead in the collection system with a landfill gas temperature less than 55oC and with either a nitrogen level less than 20 percent or an oxygen level less than 5 percent. The owner or operator may establish a higher operating temperature, nitrogen, or oxygen value at a particular well. A higher operating value demonstration shall show supporting data that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens.~~

~~1. The nitrogen level shall be determined using Method 3C, unless an alternative test method is established as allowed by § 60.752(b)(2)(i) of this subpart.~~

~~2. Unless an alternative test method is established as allowed by § 60.752(b)(2)(i) of this subpart, the oxygen shall be determined by an oxygen meter using Method 3A or 3C except that:~~

~~(i) The span shall be set so that the regulatory limit is between 20 and 50 percent of the span;~~

~~(ii) A data recorder is not required;~~

~~(iii) Only two calibration gases are required, a zero and span, and ambient air may be used as the span;~~

~~(iv) A calibration error check is not required;~~

~~(v) The allowable sample bias, zero drift, and calibration drift are ± 10 percent.~~

~~(d) Operate the collection system so that the methane concentration is less than 500 parts per million above background at the surface of the landfill. To determine if this level is exceeded, the owner or operator shall conduct surface testing around the perimeter of the collection area along a pattern that traverses the landfill at 30 meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover. The owner or operator may establish an alternative traversing pattern that ensures equivalent coverage. A surface monitoring design plan shall be developed that includes a topographical map with the monitoring route and the rationale for any site-specific deviations from the 30 meter intervals. Areas with steep slopes or other dangerous areas may be excluded from the surface testing.~~

~~(e) Operate the system such that all collected gases are vented to a control system designed and operated in compliance with § 60.752(b)(2)(iii). In the event the collection or control system is inoperable, the gas mover system shall be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere shall be closed within 1 hour; and~~

~~(f) Operate the control or treatment system at all times when the collected gas is routed to the system.~~

~~(g) If monitoring demonstrates that the operational requirements in paragraphs (b), (c), or (d) of this section are not met, corrective action shall be taken as specified in § 60.755(a)(3) through (5) or § 60.755(c) of this subpart. If corrective actions are taken as specified in § 60.755, the monitored exceedance is not a violation of the operational requirements in this section.~~

~~§ 60.754 Test methods and procedures.~~

~~(a) 1. The landfill owner or operator shall calculate the NMOC emission rate using either the equation provided in paragraph (a)(1)(i) of this section or the equation provided in paragraph (a)(1)(ii) of this section. Both equations may be used if the actual year-to year solid waste acceptance rate is known, as specified in paragraph (a)(1)(i), for part of the life of the landfill and the actual year-to-year solid waste acceptance rate is unknown, as specified in paragraph (a)(1)(ii), for part of the life of the landfill. The values to be used in both equations are 0.05 per year for k, 170 cubic meters per megagram for Lo, and 4,000 parts per million by volume as hexane for the CNMOC.~~

~~(i) The following equation shall be used if the actual year-to-year solid waste acceptance rate is known.~~

$$M_{NMOC} = \sum_{i=1}^{n} 2kL_o M_i \left(e^{-kt_i}\right)\left(C_{NMOC}\right)\left(3.6x10^{-9}\right)$$

~~where,~~

~~MNMOC = Total NMOC emission rate from the landfill, megagrams per year~~
~~k = methane generation rate constant, year-1~~
~~Lo = methane generation potential, cubic meters per megagram solid waste~~
~~Mi = mass of solid waste in the ith section, megagrams~~
~~ti = age of the ith section, years~~
~~CNMOC = concentration of NMOC, parts per million by volume as hexane~~
~~3.6 x 10-9 = conversion factor~~

~~The mass of nondegradable solid waste may be subtracted from the total mass of solid waste in a particular section of the landfill when calculating the value for Mi if documentation of the nature and amount of such wastes is maintained.~~

~~(ii) The following equation shall be used if the actual year-to-year solid waste acceptance rate is unknown.~~

~~MNMOC = 2Lo R (e-kc - e-kt) (CNMOC)(3.6 x 10-9)~~

~~where,~~

~~MNMOC = mass emission rate of NMOC, megagrams per year~~
~~L_0 = methane generation potential, cubic meters per megagram solid waste~~
~~R = average annual acceptance rate, megagrams per year~~
~~k = methane generation rate constant, year-1~~
~~t = age of landfill, years~~
~~CNMOC = concentration of NMOC, parts per million by volume as hexane~~
~~c = time since closure, years. For active landfill c = O and e-kc = 1~~
~~3.6×10^{-9} = conversion factor~~

~~The mass of nondegradable solid waste may be subtracted from the total mass of solid waste in a particular section of the landfill when calculating a value for R, if documentation of the nature and amount of such wastes is maintained.~~

~~2. Tier 1. The owner or operator shall compare the calculated NMOC mass emission rate to the standard of 50 megagrams per year.~~

~~(i) If the NMOC emission rate calculated in paragraph (a)(1) of this section is less than 50 megagrams per year, then the landfill owner shall submit an emission rate report as provided in § 60.757(b)(1), and shall recalculate the NMOC mass emission rate annually as required under § 60.752(b)(1).~~

~~(ii) If the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, then the landfill owner shall either comply with § 60.752(b)(2), or determine a site-specific NMOC concentration and recalculate the NMOC emission rate using the procedures provided in paragraph (a)(3) of this section.~~

3. Tier 2. The landfill owner or operator shall determine the NMOC concentration using the following sampling procedure. The landfill owner or operator shall install at least two sample probes per hectare of landfill surface that has retained waste for at least 2 years. If the landfill is larger than 25 hectares in area, only 50 samples are required. The sample probes should be located to avoid known areas of nondegradable solid waste. The owner or operator shall collect and analyze one sample of landfill gas from each probe to determine the NMOC concentration using Method 25 or 25C of appendix A of this part. Method 18 of appendix A of this part may be used to analyze the samples collected by the Method 25 or 25C sampling procedure. Taking composite samples from different probes into a single cylinder is allowed; however, equal sample volumes must be taken from each probe. For each composite, the sampling rate, collection times, beginning and ending cylinder vacuums, or alternate volume measurements must be recorded to verify that composite volumes are equal. Composite sample volumes should not be less than one liter unless evidence can be provided to substantiate the accuracy of smaller volumes. Terminate compositing before the cylinder approaches ambient pressure where measurement accuracy diminishes. If using Method 18 of appendix A of this part, the owner or operator must identify all compounds in the sample and, as a minimum, test for those compounds published in the most recent Compilation of Air Pollutant Emission Factors (AP-42), minus carbon monoxide, hydrogen sulfide, and mercury. As a minimum, the instrument must be calibrated for each of the compounds on the list. Convert the concentration of each Method 18 compound to CNMOC as hexane by multiplying by the ratio of its carbon atoms divided by six. If more than the required number of samples are taken, all samples shall be used in the analysis. The landfill owner or operator shall divide the NMOC concentration from Method 25 or 25C of Appendix A of this part by six to convert from CNMOC as carbon to CNMOC as hexane. If the landfill has an active or passive gas removal system in place, Method 25 or 25C samples may be collected from these systems instead of surface probes provided the removal system can be shown to provide sampling as representative at the two sampling probe per hectare requirement. For active collection systems, samples may be collected from the common header pipe before the gas moving or condensate removal equipment. For these systems, a minimum of three samples must be collected from the header pipe.

(i) The landfill owner or operator shall recalculate the NMOC mass emission rate using the equations provided in paragraph (a)(1)(i) or (a)(1)(ii) of this section and using the average NMOC concentration from the collected samples instead of the default value in the equation provided in paragraph (a)(1) of this section.

(ii) If the resulting mass emission rate calculated using the site-specific NMOC concentration is equal to or greater than 50 megagrams per year, then the landfill owner or operator shall either comply with § 60.752(b)(2), or determine the site-specific methane generation rate constant and recalculate the NMOC emission rate using the site-specific methane generation rate using the procedure specified in paragraph (a)(4) of this section.

(iii) If the resulting NMOC mass emission rate is less than 50 megagrams per year, the owner or operator shall submit a periodic estimate of the emission rate report as provided in § 60.757(b)(1) and retest the site-specific NMOC concentration every 5 years using the methods specified in this section.

4. Tier 3. The site-specific methane generation rate constant shall be determined using the procedures provided in Method 2E of appendix A of this part. The landfill owner or operator shall estimate the NMOC mass emission rate using equations in paragraph (a)(1)(i) or (a)(1)(ii) of this section and using a site-specific methane generation rate constant k, and the site-specific NMOC concentration as determined in paragraph (a)(3) of this section instead of the default values provided in paragraph (a)(1) of this section. The landfill owner or operator shall compare the resulting NMOC mass emission rate to the standard of 50 megagrams per year.

(i) If the NMOC mass emission rate as calculated using the site-specific methane generation rate and concentration of NMOC is equal to or greater than 50 megagrams per year, the owner or operator shall comply with § 60.752(b)(2).

(ii) If the NMOC mass emission rate is less than 50 megagrams per year, then the owner or operator shall submit a periodic emission rate report as provided in § 60.757(b)(1) and

~~shall recalculate the NMOC mass emission rate annually, as provided in § 60.757(b)(1) using the equations in paragraph (a)(1) of this section and using the site-specific methane generation rate constant and NMOC concentration obtained in paragraph (a)(3) of this section. The calculation of the methane generation rate constant is performed only once, and the value obtained is used in all subsequent annual NMOC emission rate calculations.~~

~~5. The owner or operator may use other methods to determine the NMOC concentration or a site-specific k as an alternative to the methods required in paragraphs (a)(3) and (a)(4) of this section if the method has been approved by the Administrator.~~

~~(b) After the installation of a collection and control system in compliance with § 60.755, the owner or operator shall calculate the NMOC emission rate for purposes of determining when the system can be removed as provided in § 60.752(b)(2)(v), using the following equation:~~

~~MNMOC = 1.89 x 10-3 QLFG CNMOC~~

~~where,~~

~~MNMOC = mass emission rate of NMOC, megagrams per year~~
~~QLFG = flow rate of landfill gas, cubic meters per minute~~
~~CNMOC = NMOC concentration, parts per million by volume as hexane~~

~~1. The flow rate of landfill gas, QLFG, shall be determined by measuring the total landfill gas flow rate at the common header pipe that leads to the control device using a gas flow measuring device calibrated according to the provisions of section 4 of Method 2E of appendix A of this part.~~

~~2. The average NMOC concentration, CNMOC, shall be determined by collecting and analyzing landfill gas sampled from the common header pipe before the gas moving or condensate removal equipment using the procedures in Method 25C or Method 18 of appendix A of this part. If using Method 18 of appendix A of this part, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). The sample location on the common header pipe shall be before any condensate removal or other gas refining units. The landfill owner or operator shall divide the NMOC concentration from Method 25C of appendix A of this part by six to convert from CNMOC as carbon to CNMOC as hexane.~~

~~3. The owner or operator may use another method to determine landfill gas flow rate and NMOC concentration if the method has been approved by the Administrator.~~

~~(c) When calculating emissions for PSD purposes, the owner or operator of each MSW landfill subject to the provisions of this subpart shall estimate the NMOC emission rate for comparison to the PSD major source and significance levels in §§ 51.166 or 52.21 of this chapter using AP-42 or other approved measurement procedures.~~

~~(d) For the performance test required in § 60.752(b)(2)(iii)(B), Method 25, 25C, or Method 18 of appendix A of this part shall be used to determine compliance with 98 weight-percent efficiency or the 20 ppmv outlet concentration level, unless another method to demonstrate compliance has been approved by the Administrator as provided by § 60.752(b)(2)(i)(B). Method 3 or 3A shall be used to determine oxygen for correcting the NMOC concentration as hexane to 3 percent. In cases where the outlet concentration is less than 50 ppm NMOC as carbon (8 ppm NMOC as hexane), Method 25A should be used in place of Method 25. If using Method 18 of appendix A of this part, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). The following equation shall be used to calculate efficiency:~~

~~Control Efficiency = (NMOCin - NMOCout)/(NMOCin)~~

~~where,~~

~~NMOCin = mass of NMOC entering control device~~
~~NMOCout = mass of NMOC exiting control device~~

~~(e) For the performance test required in §60.752(b)(2)(iii)(A), the net heating value of the combusted landfill gas as determined in §60.18(f)(3) is calculated from the concentration of methane in the landfill gas as measured by Method 3C. A minimum of three 30-minute Method 3C samples are determined. The measurement of other organic compounds, hydrogen, and carbon monoxide is not applicable. Method 3C may be used to determine the landfill gas molecular weight for calculating the flare gas exit velocity under §60.18(f)(4).~~

~~§ 60.755 Compliance provisions.~~

~~(a) Except as provided in § 60.752(b)(2)(i)(B), the specified methods in paragraphs (a)(1) through (a)(6) of this section shall be used to determine whether the gas collection system is in compliance with § 60.752(b)(2)(ii).~~

~~1. For the purposes of calculating the maximum expected gas generation flow rate from the landfill to determine compliance with § 60.752(b)(2)(ii)(A)(1), one of the following equations shall be used. The k and Lo kinetic factors should be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42) or other site specific values demonstrated to be appropriate and approved by the Administrator. If k has been determined as specified in § 60.754(a)(4), the value of k determined from the test shall be used. A value of no more than 15 years shall be used for the intended use period of the gas mover equipment. The active life of the landfill is the age of the landfill plus the estimated number of years until closure.~~

~~(i) For sites with unknown year-to-year solid waste acceptance rate:~~

~~Qm = 2Lo R (e-kc - e-kt)~~

~~where,~~

~~Qm = maximum expected gas generation flow rate, cubic meters per year~~
~~Lo = methane generation potential, cubic meters per megagram solid waste~~
~~R = average annual acceptance rate, megagrams per year~~
~~k = methane generation rate constant, year-1~~
~~t = age of the landfill at equipment installation plus the time the owner or operator intends to use the gas mover equipment or active life of the landfill, whichever is less. If the equipment is installed after closure, t is the age of the landfill at installation, years~~
~~c = time since closure, years (for an active landfill c=0 and e-kc =1)~~

~~(ii) For sites with known year-to-year solid waste acceptance rate:~~

$$Q_M = \sum_{i=1}^{n} 2kL_o M_i \left(e^{-kt_i}\right)$$

~~where,~~

~~QM = maximum expected gas generation flow rate, cubic meters per year~~
~~k = methane generation rate constant, year-1~~
~~Lo = methane generation potential, cubic meters per megagram solid waste~~
~~Mi = mass of solid waste in the ith section, megagrams~~
~~ti = age of the ith section, years~~

~~(iii) If a collection and control system has been installed, actual flow data may be used to project the maximum expected gas generation flow rate instead of, or in conjunction with, the equations in paragraphs (a)(1)(i) and (ii) of this section. If the landfill is still accepting waste, the actual measured flow data will not equal the maximum expected gas generation rate, so calculations using the equations in paragraphs (a)(1)(i) or (ii) or other methods shall be used to predict the maximum expected gas generation rate over the intended period of use of the gas control system equipment.~~

~~2. For the purposes of determining sufficient density of gas collectors for compliance with~~

~~§ 60.752(b)(2)(ii)(A)(2), the owner or operator shall design a system of vertical wells, horizontal collectors, or other collection devices, satisfactory to the Administrator, capable of controlling and extracting gas from all portions of the landfill sufficient to meet all operational and performance standards.~~

~~3. For the purpose of demonstrating whether the gas collection system flow rate is sufficient to determine compliance with § 60.752(b)(2)(ii)(A)(3), the owner or operator shall measure gauge pressure in the gas collection header at each individual well, monthly. If a positive pressure exists, action shall be initiated to correct the exceedance within 5 calendar days, except for the three conditions allowed under § 60.753(b). If negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial measurement of positive pressure. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternate timeline for correcting the exceedance may be submitted to the Administrator for approval.~~

~~4. Owners or operators are not required to install additional wells as required in paragraph (a)(3) of this section during the first 180 days after gas collection system start-up.~~

~~5. For the purpose of identifying whether excess air infiltration into the landfill is occurring, the owner or operator shall monitor each well monthly for temperature and nitrogen or oxygen as provided in § 60.753(c). If a well exceeds one of these operating parameters, action shall be initiated to correct the exceedance within 5 calendar days. If correction of the exceedance cannot be achieved within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial exceedance. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternate timeline for correcting the exceedance may be submitted to the Administrator for approval.~~

~~6. An owner or operator seeking to demonstrate compliance with § 60.752(b)(2)(ii)(A)(4) through the use of a collection system not conforming to the specifications provided in § 60.759 shall provide information satisfactory to the Administrator as specified in § 60.752(b)(2)(i)(C) demonstrating that off-site migration is being controlled.~~

~~(b) For purposes of compliance with § 60.753(a), each owner or operator of a controlled landfill shall place each well or design component as specified in the approved design plan as provided in § 60.752(b)(2)(i). Each well shall be installed within 60 days of the date in which the initial solid waste has been in place for a period of:~~

~~1. 5 years or more if active; or~~

~~2. 2 years or more if closed or at final grade;~~

~~(c) The following procedures shall be used for compliance with the surface methane operational standard as provided in § 60.753(d).~~

~~1. After installation of the collection system, the owner or operator shall monitor surface concentrations of methane along the entire perimeter of the collection area and along a pattern that traverses the landfill at 30 meter intervals (or a site-specific established spacing) for each collection area on a quarterly basis using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in paragraph (d) of this section.~~

~~2. The background concentration shall be determined by moving the probe inlet upwind and downwind outside the boundary of the landfill at a distance of at least 30 meters from the perimeter wells.~~

~~3. Surface emission monitoring shall be performed in accordance with section 4.3.1 of Method 21 of appendix A of this part, except that the probe inlet shall be placed within 5 to 10 centimeters of the ground. Monitoring shall be performed during typical meteorological conditions.~~

~~4. Any reading of 500 parts per million or more above background at any location shall be recorded~~

~~as a monitored exceedance and the actions specified in paragraphs (c)(4)(i) through (v) of this section shall be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements of § 60.753(d).~~

~~(i) The location of each monitored exceedance shall be marked and the location recorded.~~

~~(ii) Cover maintenance or adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of each exceedance shall be made and the location shall be re-monitored within 10 calendar days of detecting the exceedance.~~

~~(iii) If the re-monitoring of the location shows a second exceedance, additional corrective action shall be taken and the location shall be monitored again within 10 days of the second exceedance. If the re-monitoring shows a third exceedance for the same location, the action specified in paragraph (c)(4)(v) of this section shall be taken, and no further monitoring of that location is required until the action specified in paragraph (c)(4)(v) has been taken.~~

~~(iv) Any location that initially showed an exceedance but has a methane concentration less than 500 ppm methane above background at the 10-day re-monitoring specified in paragraph (c)(4)(ii) or (iii) of this section shall be re-monitored 1 month from the initial exceedance. If the 1-month remonitoring shows a concentration less than 500 parts per million above background, no further monitoring of that location is required until the next quarterly monitoring period. If the 1-month remonitoring shows an exceedance, the actions specified in paragraph (c)(4)(iii) or (v) shall be taken.~~

~~(v) For any location where monitored methane concentration equals or exceeds 500 parts per million above background three times within a quarterly period, a new well or other collection device shall be installed within 120 calendar days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower, header pipes or control device, and a corresponding timeline for installation may be submitted to the Administrator for approval.~~

~~5. The owner or operator shall implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis.~~

~~(d) Each owner or operator seeking to comply with the provisions in paragraph (c) of this section shall comply with the following instrumentation specifications and procedures for surface emission monitoring devices:~~

~~1. The portable analyzer shall meet the instrument specifications provided in section 3 of Method 21 of appendix A of this part, except that "methane" shall replace all references to VOC.~~

~~2. The calibration gas shall be methane, diluted to a nominal concentration of 500 parts per million in air.~~

~~3. To meet the performance evaluation requirements in section 3.1.3 of Method 21 of appendix A of this part, the instrument evaluation procedures of section 4.4 of Method 21 of appendix A of this part shall be used.~~

~~4. The calibration procedures provided in section 4.2 of Method 21 of appendix A of this part shall be followed immediately before commencing a surface monitoring survey.~~

~~(e) The provisions of this subpart apply at all times, except during periods of start-up, shutdown, or malfunction, provided that the duration of start-up, shutdown, or malfunction shall not exceed 5 days for collection systems and shall not exceed 1 hour for treatment or control devices.~~

~~§ 60.756 Monitoring of operations.~~

~~Except as provided in § 60.752(b)(2)(i)(B),~~

~~(a) Each owner or operator seeking to comply with § 60.752(b)(2)(ii)(A) for an active gas collection system shall install a sampling port and a thermometer, other temperature measuring device, or an access port for temperature measurements at each wellhead and:~~

1. Measure the gauge pressure in the gas collection header on a monthly basis as provided in § 60.755(a)(3); and

2. Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as provided in § 60.755(a)(5); and

3. Monitor temperature of the landfill gas on a monthly basis as provided in § 60.755(a)(5).

(b) Each owner or operator seeking to comply with § 60.752(b)(2)(iii) using an enclosed combustor shall calibrate, maintain, and operate according to the manufacturer's specifications, the following equipment.

1. A temperature monitoring device equipped with a continuous recorder and having an accuracy of ±1 percent of the temperature being measured expressed in degrees Celsius or ±0.5 oC, whichever is greater. A temperature monitoring device is not required for boilers or process heaters with design heat input capacity greater than 44 megawatts.

2. A device that records flow to or bypass of the control device. The owner or operator shall either:

(i) Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; or

(ii) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.

(c) Each owner or operator seeking to comply with § 60.752(b)(2)(iii) using an open flare shall install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment:

1. A heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame itself to indicate the continuous presence of a flame.

2. A device that records flow to or bypass of the flare. The owner or operator shall either:

(i) Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; or

(ii) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.

(d) Each owner or operator seeking to demonstrate compliance with § 60.752(b)(2)(iii) using a device other than an open flare or an enclosed combustor shall provide information satisfactory to the Administrator as provided in § 60.752(b)(2)(i)(B) describing the operation of the control device, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Administrator shall review the information and either approve it, or request that additional information be submitted. The Administrator may specify additional appropriate monitoring procedures.

(e) Each owner or operator seeking to install a collection system that does not meet the specifications in § 60.759 or seeking to monitor alternative parameters to those required by § 60.753 through § 60.756 shall provide information satisfactory to the Administrator as provided in § 60.752(b)(2)(i)(B) and (C) describing the design and operation of the collection system, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Administrator may specify additional appropriate monitoring procedures.

(f) Each owner or operator seeking to demonstrate compliance with § 60.755(c), shall monitor surface concentrations of methane according to the instrument specifications and procedures provided in § 60.755(d). Any closed landfill that has no monitored exceedances of the operational standard in three consecutive quarterly monitoring periods may skip to annual monitoring. Any methane reading of

~~500 ppm or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring.~~

~~§ 60.757 Reporting requirements.~~

~~Except as provided in § 60.752(b)(2)(i)(B),~~

~~(a) Each owner or operator subject to the requirements of this subpart shall submit an initial design capacity report to the Administrator.~~

~~1. The initial design capacity report shall fulfill the requirements of the notification of the date construction is commenced as required under § 60.7(a)(1) and shall be submitted no later than:~~

~~(i) June 10, 1996, for landfills that commenced construction, modification, or reconstruction on or after May 30, 1991 but before March 12, 1996, or~~

~~(ii) Ninety days after the date of commenced construction, modification, or reconstruction for landfills that commence construction, modification, or reconstruction on or after March 12, 1996.~~

~~2. The initial design capacity report shall contain the following information:~~

~~(i) A map or plot of the landfill, providing the size and location of the landfill, and identifying all areas where solid waste may be landfilled according to the permit issued by the State, local, or Tribal agency responsible for regulating the landfill.~~

~~(ii) The maximum design capacity of the landfill. Where the maximum design capacity is specified in the permit issued by the State, local, or Tribal agency responsible for regulating the landfill, a copy of the permit specifying the maximum design capacity may be submitted as part of the report. If the maximum design capacity of the landfill is not specified in the permit, the maximum design capacity shall be calculated using good engineering practices. The calculations shall be provided, along with the relevant parameters as part of the report. The State, Tribal, local agency or Administrator may request other reasonable information as may be necessary to verify the maximum design capacity of the landfill.~~

~~3. An amended design capacity report shall be submitted to the Administrator providing notification of an increase in the design capacity of the landfill, within 90 days of an increase in the maximum design capacity of the landfill to above 2.5 million megagrams and 2.5 million cubic meters. This increase in design capacity may result from an increase in the permitted volume of the landfill or an increase in the density as documented in the annual recalculation required in § 60.758(f).~~

~~(b) Each owner or operator subject to the requirements of this subpart shall submit an NMOC emission rate report to the Administrator initially and annually thereafter, except as provided for in paragraphs (b)(1)(ii) or (b)(3) of this section. The Administrator may request such additional information as may be necessary to verify the reported NMOC emission rate.~~

~~1. The NMOC emission rate report shall contain an annual or 5-year estimate of the NMOC emission rate calculated using the formula and procedures provided in § 60.754(a) or (b), as applicable.~~

~~(i) The initial NMOC emission rate report may be combined with the initial design capacity report required in paragraph (a) of this section and shall be submitted no later than indicated in paragraphs (b)(1)(i)(A) and (B) of this section. Subsequent NMOC emission rate reports shall be submitted annually thereafter, except as provided for in paragraphs (b)(1)(ii) and (b)(3) of this section.~~

~~(A) June 10, 1996, for landfills that commenced construction, modification, or reconstruction on or after May 30, 1991, but before March 12, 1996, or~~

~~(B) Ninety days after the date of commenced construction, modification, or~~

~~reconstruction for landfills that commence construction on or after March 12, 1996.~~

~~(ii) If the estimated NMOC emission rate as reported in the annual report to the Administrator is less than 50 megagrams per year in each of the next 5 consecutive years, the owner or operator may elect to submit an estimate of the NMOC emission rate for the next 5-year period in lieu of the annual report. This estimate shall include the current amount of solid waste-in-place and the estimated waste acceptance rate for each year of the 5 years for which an NMOC emission rate is estimated. All data and calculations upon which this estimate is based shall be provided to the Administrator. This estimate shall be revised at least once every 5 years. If the actual waste acceptance rate exceeds the estimated waste acceptance rate in any year reported in the 5-year estimate, a revised 5-year estimate shall be submitted to the Administrator. The revised estimate shall cover the 5-year period beginning with the year in which the actual waste acceptance rate exceeded the estimated waste acceptance rate.~~

~~2. The NMOC emission rate report shall include all the data, calculations, sample reports and measurements used to estimate the annual or 5-year emissions.~~

~~3. Each owner or operator subject to the requirements of this subpart is exempted from the requirements of paragraphs (b)(1) and (2) of this section, after the installation of a collection and control system in compliance with § 60.752(b)(2), during such time as the collection and control system is in operation and in compliance with § § 60.753 and 60.755.~~

~~(c) Each owner or operator subject to the provisions of § 60.752(b)(2)(i) shall submit a collection and control system design plan to the Administrator within 1 year of the first report, required under paragraph (b) of this section, in which the emission rate exceeds 50 megagrams per year, except as follows:~~

~~1. If the owner or operator elects to recalculate the NMOC emission rate after Tier 2 NMOC sampling and analysis as provided in § 60.754(a)(3) and the resulting rate is less than 50 megagrams per year, annual periodic reporting shall be resumed, using the Tier 2 determined site-specific NMOC concentration, until the calculated emission rate is equal to or greater than 50 megagrams per year or the landfill is closed. The revised NMOC emission rate report, with the recalculated emission rate based on NMOC sampling and analysis, shall be submitted within 180 days of the first calculated exceedance of 50 megagrams per year.~~

~~2. If the owner or operator elects to recalculate the NMOC emission rate after determining a site-specific methane generation rate constant (k), as provided in Tier 3 in § 60.754(a)(4), and the resulting NMOC emission rate is less than 50 Mg/yr, annual periodic reporting shall be resumed. The resulting site-specific methane generation rate constant (k) shall be used in the emission rate calculation until such time as the emissions rate calculation results in an exceedance. The revised NMOC emission rate report based on the provisions of § 60.754(a)(4) and the resulting site-specific methane generation rate constant (k) shall be submitted to the Administrator within 1 year of the first calculated emission rate exceeding 50 megagrams per year.~~

~~(d) Each owner or operator of a controlled landfill shall submit a closure report to the Administrator within 30 days of waste acceptance cessation. The Administrator may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of 40 CFR 258.60 of this title. If a closure report has been submitted to the Administrator, no additional wastes may be placed into the landfill without filing a notification of modification as described under § 60.7(a)(4).~~

~~(e) Each owner or operator of a controlled landfill shall submit an equipment removal report to the Administrator 30 days prior to removal or cessation of operation of the control equipment.~~

~~1. The equipment removal report shall contain all of the following items:~~

~~(i) A copy of the closure report submitted in accordance with paragraph (d) of this section;~~

~~(ii) A copy of the initial performance test report demonstrating that the 15 year minimum control period has expired; and~~

(iii) Dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 50 megagrams or greater of NMOC per year.

2. The Administrator may request such additional information as may be necessary to verify that all of the conditions for removal in § 60.752(b)(2)(v) have been met.

(f) Each owner or operator of a landfill seeking to comply with § 60.752(b)(2) using an active collection system designed in accordance with § 60.752(b)(2)(ii) shall submit to the Administrator annual reports of the recorded information in (f)(1) through (f)(6) of this paragraph. The initial annual report shall be submitted within 180 days of installation and start-up of the collection and control system, and shall include the initial performance test report required under § 60.8. For enclosed combustion devices and flares, reportable exceedances are defined under § 60.758(c).

1. Value and length of time for exceedance of applicable parameters monitored under § 60.756(a), (b), (c), and (d).

2. Description and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow as specified under § 60.756.

3. Description and duration of all periods when the control device was not operating for a period exceeding 1 hour and length of time the control device was not operating.

4. All periods when the collection system was not operating in excess of 5 days.

5. The location of each exceedance of the 500 parts per million methane concentration as provided in § 60.753(d) and the concentration recorded at each location for which an exceedance was recorded in the previous month.

6. The date of installation and the location of each well or collection system expansion added pursuant to paragraphs (a)(3), (b), and (c)(4) of § 60.755.

(g) Each owner or operator seeking to comply with § 60.752(b)(2)(iii) shall include the following information with the initial performance test report required under § 60.8:

1. A diagram of the collection system showing collection system positioning including all wells, horizontal collectors, surface collectors, or other gas extraction devices, including the locations of any areas excluded from collection and the proposed sites for the future collection system expansion;

2. The data upon which the sufficient density of wells, horizontal collectors, surface collectors, or other gas extraction devices and the gas mover equipment sizing are based;

3. The documentation of the presence of asbestos or nondegradable material for each area from which collection wells have been excluded based on the presence of asbestos or nondegradable material;

4. The sum of the gas generation flow rates for all areas from which collection wells have been excluded based on nonproductivity and the calculations of gas generation flow rate for each excluded area; and

5. The provisions for increasing gas mover equipment capacity with increased gas generation flow rate, if the present gas mover equipment is inadequate to move the maximum flow rate expected over the life of the landfill; and

6. The provisions for the control of off-site migration.

§ 60.758 Recordkeeping requirements.

(a) Except as provided in § 60.752(b)(2)(i)(B), each owner or operator of an MSW landfill subject to the provisions of § 60.752(b) shall keep for at least 5 years up-to-date, readily accessible, on-site records of the maximum design capacity report which triggered §60.752(b), the current amount of solid waste

~~in-place, and the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable.~~

~~(b) Except as provided in § 60.752(b)(2)(i)(B), each owner or operator of a controlled landfill shall keep up-to-date, readily accessible records for the life of the control equipment of the data listed in paragraphs (b)(1) through (b)(4) of this section as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring shall be maintained for a minimum of 5 years. Records of the control device vendor specifications shall be maintained until removal.~~

~~1. Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with § 60.752(b)(2)(ii):~~

~~(i) The maximum expected gas generation flow rate as calculated in § 60.755(a)(1). The owner or operator may use another method to determine the maximum gas generation flow rate, if the method has been approved by the Administrator.~~

~~(ii) The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in § 60.759(a)(1).~~

~~2. Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with § 60.752(b)(2)(iii) through use of an enclosed combustion device other than a boiler or process heater with a design heat input capacity greater than 44 megawatts:~~

~~(i) The average combustion temperature measured at least every 15 minutes and averaged over the same time period of the performance test.~~

~~(ii) The percent reduction of NMOC determined as specified in § 60.752(b)(2)(iii)(B) achieved by the control device.~~

~~3. Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with § 60.752(b)(2)(iii)(B)(1) through use of a boiler or process heater of any size: a description of the location at which the collected gas vent stream is introduced into the boiler or process heater over the same time period of the performance testing.~~

~~4. Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with § 60.752(b)(2)(iii)(A) through use of an open flare, the flare type (i.e., steam-assisted, air-assisted, or nonassisted), all visible emission readings, heat content determination, flow rate or bypass flow rate measurements, and exit velocity determinations made during the performance test as specified in § 60.18; continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations during which the pilot flame of the flare flame is absent.~~

~~(c) Except as provided in § 60.752(b)(2)(i)(B), each owner or operator of a controlled landfill subject to the provisions of this subpart shall keep for 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in § 60.756 as well as up-to-date, readily accessible records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded.~~

~~1. The following constitute exceedances that shall be recorded and reported under § 60.757(f):~~

~~(i) For enclosed combustors except for boilers and process heaters with design heat input capacity of 44 megawatts (150 million British thermal unit per hour) or greater, all 3-hour periods of operation during which the average combustion temperature was more than 28 oC below the average combustion temperature during the most recent performance test at which compliance with § 60.752(b)(2)(iii) was determined.~~

~~(ii) For boilers or process heaters, whenever there is a change in the location at which the vent stream is introduced into the flame zone as required under paragraph (b)(3) of this section.~~

~~2. Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily~~

~~accessible continuous records of the indication of flow to the control device or the indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines, specified under § 60.756.~~

~~3. Each owner or operator subject to the provisions of this subpart who uses a boiler or process heater with a design heat input capacity of 44 megawatts or greater to comply with § 60.752(b)(2)(iii) shall keep an up-to-date, readily accessible record of all periods of operation of the boiler or process heater. (Examples of such records could include records of steam use, fuel use, or monitoring data collected pursuant to other State, local, Tribal, or Federal regulatory requirements.)~~

~~4. Each owner or operator seeking to comply with the provisions of this subpart by use of an open flare shall keep up-to-date, readily accessible continuous records of the flame or flare pilot flame monitoring specified under § 60.756(c), and up-to-date, readily accessible records of all periods of operation in which the flame or flare pilot flame is absent.~~

~~(d) Except as provided in § 60.752(b)(2)(i)(B), each owner or operator subject to the provisions of this subpart shall keep for the life of the collection system an up-to-date, readily accessible plot map showing each existing and planned collector in the system and providing a unique identification location label for each collector.~~

~~1. Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified under § 60.755(b).~~

~~2. Each owner or operator subject to the provisions of this subpart shall keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing or nondegradable waste excluded from collection as provided in § 60.759(a)(3)(i) as well as any nonproductive areas excluded from collection as provided in § 60.759(a)(3)(ii).~~

~~(e) Except as provided in § 60.752(b)(2)(i)(B), each owner or operator subject to the provisions of this subpart shall keep for at least 5 years up-to-date, readily accessible records of all collection and control system exceedances of the operational standards in § 60.753, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance.~~

~~(f) Landfill owners or operators who convert design capacity from volume to mass or mass to volume to demonstrate that landfill design capacity is less than 2.5 million megagrams or 2.5 million cubic meters, as provided in the definition of "design capacity" shall keep readily accessible, on-site records of the annual recalculation of site-specific density, design capacity, and the supporting documentation. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable.~~

~~§ 60.759 Specifications for active collection systems.~~

~~(a) Each owner or operator seeking to comply with § 60.752(b)(2)(i) shall site active collection wells, horizontal collectors, surface collectors, or other extraction devices at a sufficient density throughout all gas producing areas using the following procedures unless alternative procedures have been approved by the Administrator as provided in § 60.752(b)(2)(i)(C) and (D):~~

~~1. The collection devices within the interior and along the perimeter areas shall be certified to achieve comprehensive control of surface gas emissions by a professional engineer. The following issues shall be addressed in the design: depths of refuse, refuse gas generation rates and flow characteristics, cover properties, gas system expandibility, leachate and condensate management, accessibility, compatibility with filling operations, integration with closure end use, air intrusion control, corrosion resistance, fill settlement, and resistance to the refuse decomposition heat.~~

~~2. The sufficient density of gas collection devices determined in paragraph (a)(1) of this section shall address landfill gas migration issues and augmentation of the collection system through the use of active or passive systems at the landfill perimeter or exterior.~~

3. The placement of gas collection devices determined in paragraph (a)(1) of this section shall control all gas producing areas, except as provided by paragraphs (a)(3)(i) and (a)(3)(ii) of this section.

(i) Any segregated area of asbestos or nondegradable material may be excluded from collection if documented as provided under § 60.758(d). The documentation shall provide the nature, date of deposition, location and amount of asbestos or nondegradable material deposited in the area, and shall be provided to the Administrator upon request.

(ii) Any nonproductive area of the landfill may be excluded from control, provided that the total of all excluded areas can be shown to contribute less than 1 percent of the total amount of NMOC emissions from the landfill. The amount, location, and age of the material shall be documented and provided to the Administrator upon request. A separate NMOC emissions estimate shall be made for each section proposed for exclusion, and the sum of all such sections shall be compared to the NMOC emissions estimate for the entire landfill. Emissions from each section shall be computed using the following equation:

$$Q_i = 2 k L_o M_i (e^{-kt_i}) (C_{NMOC}) (3.6 \times 10^{-9})$$

where,

Q_i	=	NMOC emission rate from the ith section, megagrams per year
k	=	methane generation rate constant, year -1
L_o	=	methane generation potential, cubic meters per megagram solid waste
M_i	=	mass of the degradable solid waste in the ith section, megagram
t_i	=	age of the solid waste in the ith section, years
C_{NMOC}	=	concentration of nonmethane organic compounds, parts per million by volume
3.6×10^{-9}	=	conversion factor

(iii) The values for k, Lo, and CNMOC determined in field testing shall be used if field testing has been performed in determining the NMOC emission rate or the radii of influence (this distance from the well center to a point in the landfill where the pressure gradient applied by the blower or compressor approaches zero). If field testing has not been performed, the default values for k, Lo and CNMOC provided in § 60.754(a)(1) or the alternate values from §60.754(a)(5) shall be used. The mass of nondegradable solid waste contained within the given section may be subtracted from the total mass of the section when estimating emissions provided the nature, location, age, and amount of the nondegradable material is documented as provided in paragraph (a)(3)(i) of this section.

(b) Each owner or operator seeking to comply with § 60.752(b)(2)(i)(A) shall construct the gas collection devices using the following equipment or procedures:

1. The landfill gas extraction components shall be constructed of polyvinyl chloride (PVC), high density polyethylene (HDPE) pipe, fiberglass, stainless steel, or other nonporous corrosion resistant material of suitable dimensions to: convey projected amounts of gases; withstand installation, static, and settlement forces; and withstand planned overburden or traffic loads. The collection system shall extend as necessary to comply with emission and migration standards. Collection devices such as wells and horizontal collectors shall be perforated to allow gas entry without head loss sufficient to impair performance across the intended extent of control. Perforations shall be situated with regard to the need to prevent excessive air infiltration.

2. Vertical wells shall be placed so as not to endanger underlying liners and shall address the occurrence of water within the landfill. Holes and trenches constructed for piped wells and horizontal collectors shall be of sufficient cross-section so as to allow for their proper construction and completion including, for example, centering of pipes and placement of gravel backfill. Collection devices shall be designed so as not to allow indirect short circuiting of air into the cover or refuse into the collection system or gas into the air. Any gravel used around pipe perforations should be of a dimension so as not to penetrate or block perforations.

~~3. Collection devices may be connected to the collection header pipes below or above the landfill surface. The connector assembly shall include a positive closing throttle valve, any necessary seals and couplings, access couplings and at least one sampling port. The collection devices shall be constructed of PVC, HDPE, fiberglass, stainless steel, or other nonporous material of suitable thickness.~~

~~(c) Each owner or operator seeking to comply with § 60.752(b)(2)(i)(A) shall convey the landfill gas to a control system in compliance with § 60.752(b)(2)(iii) through the collection header pipe(s). The gas mover equipment shall be sized to handle the maximum gas generation flow rate expected over the intended use period of the gas moving equipment using the following procedures:~~

~~1. For existing collection systems, the flow data shall be used to project the maximum flow rate. If no flow data exists, the procedures in paragraph (c)(2) of this section shall be used.~~

~~2. For new collection systems, the maximum flow rate shall be in accordance with § 60.755(a)(1).~~

Authority: T.C.A. §§ 68-201-101 et seq. and 4-5-201 et seq.

I certify that the information included in this filing is an accurate and complete representation of the intent and scope of rulemaking proposed by the agency.

Date: _____

Signature: _____

Name of Officer: _____

Title of Officer: _____

Subscribed and sworn to before me on: _____

Notary Public Signature: _____

My commission expires on: _____

Department of State Use Only

Filed with the Department of State on: _____

_____
Tre Hargett
Secretary of State

To: Spagg, Beverly[Spagg.Beverly@epa.gov]; Dubose, Dick[DuBose.Dick@epa.gov]; Mitchell, Ken[Mitchell.Ken@epa.gov]; Adams, Sydnee[Adams.Sydnee@epa.gov]; Amanulah, Ahmed[Amanulah.Ahmed@epa.gov]; Anderson, Seneca[Anderson.Seneca@epa.gov]; Arias, Megan[arias.megan@epa.gov]; Bloeth, Mark[Bloeth.Mark@epa.gov]; Campbell, Jean[Campbell.Jean@epa.gov]; Carpenter, Jacob[Carpenter.Jacob@epa.gov]; Dressler, Jason[Dressler.Jason@epa.gov]; Gala, Chetan[Gala.Chetan@epa.gov]; Goff, Keith[Goff.Keith@epa.gov]; Griffith, Carrie[griffith.carrie@epa.gov]; Groendyke, Todd[Groendyke.Todd@epa.gov]; Hughes, Rosalyn[Hughes.Rosalyn@epa.gov]; Kler, Denis[Kler.Denis@epa.gov]; Lawson, Yvonne[Lawson.Yvonne@epa.gov]; Lloyd, David[Lloyd.David@epa.gov]; Majumder, Joydeb[Majumder.Joydeb@epa.gov]; McNeal, Dave[Mcneal.Dave@epa.gov]; Page, Lee[Page.Lee@epa.gov]; Porter, Sharron[Porter.Sharron@epa.gov]; Radford, Nicole[Radford.Nicole@epa.gov]; Reed, Wendell[Reed.Wendell@epa.gov]; Rieck, Stephen[Rieck.Stephen@epa.gov]; Porter, Sharron[Porter.Sharron@epa.gov]; Taylor, Kevin[Taylor.Kevin@epa.gov]; Warrilow, Phyllis[Warrilow.Phyllis@epa.gov]
From: Russo, Todd
Sent: Fri 1/20/2017 12:30:51 PM
Subject: FW: Corrected landfill NSPS presentation
EPA Landfill Rules.pptx

Many thanks to David for providing such an informative landfill NSPS presentation. His presentation is attached.

Regards,

Todd Russo
U.S. EPA Region 4
South Air Enforcement and Toxics Section
Tel: (404) 562-9194
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From: McNeal, Dave
Sent: Thursday, January 19, 2017 2:52 PM
To: Russo, Todd <Russo.Todd@epa.gov>
Subject: Corrected landfill NSPS presentation

Todd,

You mentioned that you were going to send everyone a copy of the today's landfill presentation. Here is an updated version in which I've corrected a couple of typos that I noticed when I was giving my talk earlier this afternoon.

David McNeal

EPA Region 4

404-562-9102

New Source Performance Standards for Municipal Solid Waste Landfills

40 CFR Part 60, Subparts WWW, XXX, and Cf

ED_001764_00013878

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Why Regulate Landfill Air Emissions?

- On average, each megagram of waste will generate 170 cubic meters (6,000 cubic feet) of gas by the time it completely decomposes
- Decomposition takes 20 to 50 years, depending upon moisture levels in the waste
- Typical landfill gas is roughly a 50/50 mixture of methane and CO_2 where nonmethane organic compounds (NMOCs) are present in conentrations of a few hundred to a few thousand parts per million by volume (ppmv)
- Both methane and NMOCs can percolate up to the landfill surface and generate air emissions

ED_001764_00013878

NSPS Subpart WWW Applicability

- Promulgated in March 1996
- Applicable to municipal solid waste landfills that commenced construction, reconstruction or modification on or after May 30, 1991
- NSPS are technology-based standards
- Most activities under Subpart WWW are delegated to State and Local Agencies

ED_001764_00013878

NSPS Subpart WWW Reporting

- Owners and operators of landfills with a design capacity less than 2.5 million megagrams (Mg) by mass or 2.5 million cubic meters by volume must submit an initial design capacity report
- Owners and operators of landfills with a design capacity equal to or greater than 2.5 million Mg and 2.5 million cubic meters must calculate the NMOC emission rate for the landfill and report the results on annual basis
- Facilities with design capacities below 2.5 million Mg or 2.5 million cubic meters trigger the annual emission reporting requirement if they expand their capacity beyond those thresholds

ED_001764_00013878

NSPS Subpart WWW Control Requirements

- A gas collection and control system (GCCS) must be installed once the calculated NMOC emission rate is equal to or greater than 50 Mg per year
- A plan for the GCCS must be submitted within one year after the first annual report indicating that the NMOC emission rate is equal to or greater than 50 Mg per year
- Installation of the GCCS must be completed within 30 months after the first annual report indicating that the NMOC emission rate is equal to or greater than 50 Mg per year
- Wells are required in closed areas where waste has been in place for 2 years or more and in active areas where waste has been in place for 5 years or more

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NSPS Subpart WWW Emission Calculations

- One option for calculating NMOC emission rates is to use default equations promulgated in 40 CFR 60.754 (Tier 1)
- The default equations tend to overestimate emissions, but they provide a simple, low-cost way of determining if a GCCS is needed
- The default NMOC concentration and under 40 CFR 60.754 is 4000 ppmv as hexane
- The default methane generation rate constant under 40 CFR 60.754 is either 0.05 or 0.02 per year (the lower value is for areas with annual precipitation of less than 25 inches)

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NSPS Subpart WWW Emission Calculations

$$M_{NMOC} = \sum_{i=1}^{n} 2\,k\,L_o M_i \left(e^{-kt_i}\right)\left(C_{NMOC}\right)\left(3.6\times10^{-9}\right)$$

where,

M_{NMOC} = Total NMOC emission rate from the landfill, megagrams per year

k = methane generation rate constant, year^{-1}

L_o = methane generation potential, cubic meters per megagram solid waste (170 cubic meters per megagram)

M_i = mass of solid waste in the ith section, megagrams

t_i = age of the ith section, years

C_{NMOC} = concentration of NMOC, parts per million by volume as hexane

3.6×10^{-9} = conversion factor

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NSPS Subpart WWW Emission Calculations

- If the default equation indicates that NMOC emissions equal or exceed 50 Mg per year, the landfill owner/operator has the option to conduct sampling to determine a site-specific NMOC concentration (Tier 2) and/or methane generation rate constant (Tier 3)
- Determining a site-specific NMOC concentration or methane generation rate constant entails testing costs, but it may result in overall cost savings by pushing back the GCCS installation date
- Tier 2 and Tier 3 testing must be repeated every five years

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NSPS Subpart WWW NMOC Control Options

- Route the landfill gas to an open flare that meets the design and operating requirements in 40 CFR 60.18,
- Route the landfill gas to a control device that reduces NMOC emissions by 98 percent or down to a concentration of less than equal to 20 ppm, corrected to three percent oxygen, or
- Route the landfill gas to a treatment system that processes the collected gas for subsequent sale or use
- Potential uses for treated gas include on-site electrical generation, sale as natural gas, or use as vehicle fuel

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NSPS Subpart WWW Treatment Option

- Treated gas is no longer subject to the control requirements in Subpart WWW
- Subpart WWW does not define treatment, but a series of determinations issued after promulgation of the rule say that treatment consists of three steps – filtering the landfill gas to 10 microns or less, dewatering, and compression

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Subpart WWW Monthly Well Monitoring

- Pressure at wellhead must be negative unless there is a fire, a geomembrane or synthetic cover is in place, or a well has been decommissioned due to declining gas flow rates
- Well temperature – limit is 55 □C (131 □F)
- Gas composition – limit is 20 % for nitrogen or 5 % for oxygen
- Higher temperature, nitrogen, and or oxygen limits can be approved by State Agency if a landfill owner/operator demonstrates that the higher value does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens

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Operational Parameter Monitoring

- Continuous temperature and bypass flow monitoring for enclosed combustors
- Continuous monitoring for presence of a flame and bypass flow monitoring for flares

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Quarterly Methane Surface Concentration Monitoring

- Use portable detection equipment (OVA, FID, etc.) to measure methane concentration across the surface of the landfill
- Measurements must be made at 30 meter intervals and where visual observations (i.e., cracks in the landfill surface or distressed vegetation) indicate the potential for leaks
- Measurements made within 5 to 10 centimeters of the ground
- Exceedances are defined as a methane concentration of 500 ppm or more above background
- Areas with steep slopes or other dangerous areas may be excluded from monitoring

ED_001764_00013878

Corrective Action Provisions

- First attempt at correcting pressure, temperature, or gas quality exceedances must be made with 5 days
- The gas collection system must be expanded within 120 days if an exceedance cannot be corrected within 15 days of discovery
- For methane surface concentrations of 500 ppm or greater, re-monitoring is required with 10 days
- If the methane surface concentrations is 500 ppm or greater during three successive checks within a quarterly period, a new well or other collection device must be installed with 120 days
- Owners/operators can request approval of an alternative timeline for correcting exceedances

ED_001764_00013878

NSPS Subpart XXX

- Proposed on July 17, 2014
- Applicable to municipal solid waste landfills that commenced construction, reconstruction or modification on or after the proposal date
- Supplemental proposal on August 27, 2015
- Promulgated on August 29, 2016
- Effective date of October 28, 2016

ED_001764_00013878

NSPS Subpart XXX – July 2014 Proposal

- Requirements very similar to those in Subpart WWW
- Original proposal lowered the NMOC emission rate threshold that triggers the requirement for a GCCS from 50 Mg/yr to 40 Mg/yr
- Proposed rule includes a definition for the word treatment
- Proposed rule includes a requirement that landfill owners and operators estimate the magnitude of emissions during startup, shutdown, and malfunction
- Proposed rule includes clarifications regarding issues that have come up frequently since the promulgation of Subpart WWW

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Subpart XXX Tier 4 Option

- Option available to landfills whose NMOC emission rate falls between 34 Mg/yr and 50 Mg/yr based upon Tier 1 – 3 calculations
- Requirement for a GCCS is not triggered if quarterly monitoring indicates that the surface methane concertation is less than 500 parts per million (ppm)
- Submittal of a GCCS design plan required within one year after the first instance when the methane concentration is 500 ppm or greater during a quarterly monitoring event

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NSPS Subpart XXX

- The preamble for the July 2014 proposal said that EPA expected there to be 17 affected landfills across the US by 2023
- EPA estimated that a GCCS would be required for eight affected landfills by 2023
- EPA estimated that nine of the affected landfills will only be subject to annual NMOC emission rate reporting requirement by 2023

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Subpart XXX Supplemental Proposal

- Requested public comments on a proposal to lower the NMOC emission rate triggering the GCCS requirement from 40 Mg/yr to 34 Mg/yr
- Requested public comments on the number of facilities that might become subject to Subpart XXX

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Number of New Affected Facilities

- Multiple public comments on July 2014 proposal contend that EPA underestimated the number of landfills that would become subject to the Subpart XXX as a result of modification
- As a result of these comments, EPA revisited its assumptions about the number of affected facilities
- The estimate of facilities requiring controls by 2025 jumped from 8 to 140
- The large increase in facilities needing controls is due primarily to existing facilities that are expected to undergo modifications (i.e., design capacity increases)

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Methane Emissions are Considered Under the Supplemental Proposal

- Part of the President's 2014 Climate Action Plan that focuses on reducing methane emissions
- Methane is 28 – 36 times more potent than CO_2 in terms of its greenhouse gas potential
- Methane is second only to CO_2 as a climate change driver - estimates are that 84 percent of the effect is due to CO_2 and 9 percent is due to methane

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Impact of Subpart XXX

- NMOC emission reduction of 12,240 Mg/yr by 2025
- Methane emission reduction of 1,929,800 Mg/year by 2025
- CO_2e emission reduction of 48.3 million Mg/yr by 2025

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Perspective on Subpart XXX Emission Reductions

- CO_2e emission reduction of 48.3 million Mg/yr by 2025 due to Subpart XXX
- Annual CO_2 emission reduction of 870 million tons (from 2005 baseline year) by 2030 under EPA's Clean Power Plan for existing electrical generating units
- US CO_2 emission rate of 5.3 billion tons in 2013
- Global CO_2 emission rate of 35.27 billion tons in 2013

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NSPS Subpart Cf

- 111(d) rule for existing landfills (i.e. those constructed, reconstructed, or modified before July 17, 2014)
- Requirements under Subpart Cf are the same as those in Subpart XXX
- Subpart WWW sources will eventually become subject to the more stringent requirements under Subpart Cf

ED_001764_00013878

Subpart Cf Rulemaking Process

- States required to submit plans by May 30, 2017
- EPA must approve or disapprove plans or plan revisions within four months of receipt
- EPA must propose a Federal plan for States that either do not submit a plan or submit a plan that is not approvable
- According to OAQPS landfill contact, rulemaking for a Federal plan is being delayed due to work on revisions to the landfill NESHAP (Part 63, Subpart AAAA)
- The Federal plan for the previous landfill 111(d) rule didn't come out until three years after NSPS Subpart WWW

To: Russo, Todd[Russo.Todd@epa.gov]
From: McNeal, Dave
Sent: Fri 1/13/2017 3:31:59 PM
Subject: RE: Landfill Presentation
EPA Landfill Rules.pptx

From: Russo, Todd
Sent: Friday, January 13, 2017 10:28 AM
To: McNeal, Dave <Mcneal.Dave@epa.gov>
Subject: Landfill Presentation

Hi David,

Do you mind sending me an electronic copy of your landfill presentation? I'd like to start getting up to speed since GA EPD wants to meet with us to discuss how they adopt the federal landfill plan. If I'm remembering correctly, the federal plan won't be issued quite some time.

Regards,

Todd Russo
U.S. EPA Region 4
South Air Enforcement and Toxics Section
Tel: (404) 562-9194
Fax: (404) 562-9163

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To: Terry, Randy[Terry.Randy@epa.gov]; Johnson, Terry[Johnson.Terry@epa.gov]
Cc: Dubose, Dick[DuBose.Dick@epa.gov]; Russo, Todd[Russo.Todd@epa.gov]
From: McNeal, Dave
Sent: Mon 4/24/2017 2:43:55 PM
Subject: RE: Region 4 Air Permitting workshop
NSPS Subparts XXX and Cf.pptx

Hi,

As requested, I have attached a copy of my landfill NSPS presentation for the Air Permitting Workshop. I have also completed my registration for the workshop with Metro 4-SESARM.

David McNeal

EPA Region 4

404-562-9102

From: Terry, Randy
Sent: Friday, March 31, 2017 2:54 PM
To: Melissa Fortenberry <MFortenberry@mdeq.ms.gov>; Eric Cornwell <eric.cornwell@dnr.ga.gov>; hardeecd@dhec.sc.gov
Cc: Shepherd, Lorinda <Shepherd.Lorinda@epa.gov>; Adams, Yolanda <Adams.Yolanda@epa.gov>; Zuniga, Mario <zuniga.mario@epa.gov>; Benjamin, Lynorae <benjamin.lynorae@epa.gov>; Gillam, Rick <Gillam.Rick@epa.gov>; Hazziez, Natasha <Hazziez.Natasha@epa.gov>; Rubini, Suzanne <Rubini.Suzanne@epa.gov>; Ceron, Heather <Ceron.Heather@epa.gov>; Hofmeister, Art <Hofmeister.Art@epa.gov>; Lloyd, David <Lloyd.David@epa.gov>; Purvis, James <Purvis.James@epa.gov>; Shepherd, Lorinda <Shepherd.Lorinda@epa.gov>; Huey, Joel <Huey.Joel@epa.gov>; Fortin, Kelly <Fortin.Kelly@epa.gov>; McNeal, Dave <Mcneal.Dave@epa.gov>; Page, Lee <Page.Lee@epa.gov>; Dressler, Jason <Dressler.Jason@epa.gov>
Subject: Region 4 Air Permitting workshop

Greetings,

We have you listed as a presenter at the Region 4 Air permitting workshop, May 2-4. If this is

an error, please email me so that we can correct things. Otherwise, please email myself and Terry Johnson a copy of your presentation by close of business on April 26th. As a reminder, please be sure to register for the workshop, and join the Region 4 Air Permitting workshop sharepoint site. If you have not received an invite to the sharepoint site, please email Terry Johnson.

Additionally, we are closely monitoring the budget situation and we will update folks as we know anything that would affect the workshop.

Title V Program Expert

Terry.Randy@epa.gov

404-562-9032

New Source Performance Standards for Municipal Solid Waste Landfills

40 CFR Part 60, Subparts XXX, and Cf

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Why Regulate Landfill Air Emissions?

- On average, each megagram of waste will generate 170 cubic meters (6,000 cubic feet) of gas by the time it completely decomposes
- Decomposition takes 20 to 50 years, depending upon moisture levels in the waste
- Typical landfill gas is roughly a 50/50 mixture of methane and CO_2 where nonmethane organic compounds (NMOCs) are present in conentrations of a few hundred to a few thousand parts per million by volume (ppmv)
- Both methane and NMOCs can percolate up to the landfill surface and generate air emissions

ED_001764_00013961

NSPS Subpart XXX – Regulatory History

- Proposal - July 17, 2014
- Applicable to municipal solid waste landfills that commenced construction, reconstruction or modification on or after the proposal date
- Supplemental proposal - August 27, 2015
- Promulgation - August 29, 2016
- Effective date - October 28, 2016

ED_001764_00013961

Methane Emissions are Considered Under the Supplemental Proposal

- Part of the President Obama's 2014 Climate Action Plan that focuses on reducing methane emissions
- Methane is 28 – 36 times more potent than CO_2 in terms of its greenhouse gas potential
- Methane is second only to CO_2 as a climate change driver - estimates are that 84 percent of the effect is due to CO_2 and 9 percent is due to methane
- Supplemental proposal lowered NMOC emission rate that triggers control requirement from 40 Mg/yr to 34 Mg/yr

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Initial Reporting Requirement

- Initial design capacity report for landfills with a design capacity less than 2.5 million megagrams (Mg) by mass or 2.5 million cubic meters by volume
- Annual NMOC emission rate reporting for landfills with a design capacity equal to or greater than 2.5 million Mg and 2.5 million cubic meters
- November 28, 2016, reporting deadline for landfills constructed, reconstructed, or modified between July 17, 2014, and August 29, 2016
- Reports due in 90 days for landfills constructed, reconstructed, or modified after August 29, 2016

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Control System Requirements

- A gas collection and control system (GCCS) must be installed once the calculated NMOC emission rate is equal to or greater than 34 Mg per year
- A plan for the GCCS must be submitted within one year after the first annual report indicating that the NMOC emission rate is equal to or greater than 34 Mg per year
- Installation of the GCCS must be completed within 30 months after the first annual report indicating that the NMOC emission rate is equal to or greater than 34 Mg per year
- Wells are required in closed areas where waste has been in place for 2 years or more and in active areas where waste has been in place for 5 years or more

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NSPS Subpart WWW Emission Calculations

$$M_{NMOC} = \sum_{i=1}^{n} 2\,k\,L_o M_i \left(e^{-kt_i}\right)\left(C_{NMOC}\right)\left(3.6\times10^{-9}\right)$$

where,

M_{NMOC} = Total NMOC emission rate from the landfill, megagrams per year

k = methane generation rate constant, year^{-1}

L_o = methane generation potential, cubic meters per megagram solid waste (170 cubic meters per megagram)

M_i = mass of solid waste in the ith section, megagrams

t_i = age of the ith section, years

C_{NMOC} = concentration of NMOC, parts per million by volume as hexane

3.6×10^{-9} = conversion factor

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Tier 1 Emission Rate Calculation Option

- NMOC emission rates can be calculated using a default equation promulgated in 40 CFR 60.764
- Tier 1 tends to overestimate emissions, but it provides a simple, low-cost way of determining if a GCCS is needed
- The default NMOC concentration and under 40 CFR 60.764 is 4000 ppmv as hexane
- The default methane generation rate constant under 40 CFR 60.764 is either 0.05 or 0.02 per year (the lower value is for areas with annual precipitation of less than 25 inches)

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Tier 2 and 3 Calculation Options

- If Tier 1 indicates that NMOC emissions equal or exceed 34 Mg per year, the landfill owner/operator can conduct sampling to determine a site-specific NMOC concentration (Tier 2) and/or methane generation rate constant (Tier 3)
- Determining a site-specific NMOC concentration or methane generation rate constant entails testing costs, but it may result in overall cost savings by pushing back the GCCS installation date
- Tier 2 and Tier 3 testing must be repeated every five years

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Tier 4 Option

- Option available to landfills whose NMOC emission rate falls between 34 Mg/yr and 50 Mg/yr based upon Tier 1 – 3 calculations
- Requirement for a GCCS is not triggered until quarterly monitoring indicates that the surface methane concertation is 500 parts per million (ppm) or higher
- Submittal of a GCCS design plan required within one year after the first instance when the methane concentration is 500 ppm or greater during a quarterly monitoring event
- Tier 4 is a new option that was not available under the previous NSPS for landfills (Subpart WWW)

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NMOC Control Options

- Route the landfill gas to an open flare that meets the design and operating requirements in 40 CFR 60.18,
- Route the landfill gas to a control device that reduces NMOC emissions by 98 percent or down to a concentration of less than equal to 20 ppm, corrected to three percent oxygen, or
- Route the landfill gas to a treatment system that processes the collected gas for subsequent sale or use

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Landfill Gas Treatment Option

- Treatment involves filtering, de-watering, and compressing landfill gas for sale or beneficial use
- Potential uses for treated gas include on-site electrical generation, sale as natural gas, or use as vehicle fuel
- Treated gas is no longer subject to the control requirements in Subpart XXX

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Gas Collection Well Operating Requirements

- Maintain negative pressure at wellheads unless there is a fire, a geomembrane or synthetic cover is in place, or a well has been decommissioned due to declining gas flow rates
- Maintain a wellhead temperature 55 □C (131 □F) or less
- A higher temperature limits can be approved by State Agency if a landfill owner/operator demonstrates that the higher value does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens
- Maintain the methane concentration at the surface of the landfill at 500 ppm or less above background

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Operational Parameter Monitoring

- Enclosed combustors
  - Continuous monitoring for combustion temperature
  - Bypass flow monitoring
- Flares
  - Continuous monitoring for presence of a flame
  - Bypass flow monitoring

Monthly Monitoring Requirements

- Wellhead pressure
- Nitrogen or oxygen concentration
- Wellhead temperature

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Quarterly Methane Surface Concentration Monitoring

- Use portable detection equipment (OVA, FID, etc.) to measure methane concentration across the surface of the landfill
- Measurements must be made at 30 meter intervals and where visual observations (i.e., cracks in the landfill surface or distressed vegetation and cover penetrations) indicate the potential for leaks
- Measurements made within 5 to 10 centimeters of the ground
- Exceedances are defined as a methane concentration of 500 ppm or more above background
- Areas with steep slopes or other dangerous areas may be excluded from monitoring

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Corrective Action Provisions

- A first attempt at correcting pressure and temperature exceedances must be made with 5 days
- If an exceedance cannot be corrected with 15 days, a root cause analysis must be performed, and the exceedance must be corrected as soon as possible, but no later than 60 days after detection
- If corrective action cannot be fully implemented within 60 days, a corrective action analysis must be conducted, and a schedule must be developed for correcting the exceedance as soon as possible, but not later than 120 days after detection
- If the corrective action is expected to take longer than 120 days, the root cause analysis, corrective action analysis, and corresponding timeline must be submitted to the Administrator

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Corrective Action Provisions (continued)

- When a methane surface concentration of 500 ppm or greater is detected, cover maintenance must be performed and/or vacuum adjustments must be made, and re-monitoring must be conducted within 10 days
- If the methane surface concentrations is 500 ppm or greater during three successive checks within a quarterly period, a new well or other collection device must be installed with 120 days
- Proposed alternatives to installing new wells may be submitted to the Administrator for approval

ED_001764_00013961

Impact of Subpart XXX

- NMOC emission reduction of 12,240 Mg/yr by 2025
- Methane emission reduction of 1,929,800 Mg/year by 2025
- CO_2e emission reduction of 48.3 million Mg/yr by 2025
- For perspective, the annual CO_2 emission reduction achieved by 2030 under EPA's Clean Power Plan is of 870 million tons per year (from 2005 baseline year)

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NSPS Subpart Cf

- 111(d) rule for existing landfills (i.e. those constructed, reconstructed, or modified before July 17, 2014)
- Requirements under Subpart Cf are the same as those in Subpart XXX
- Subpart WWW sources will eventually become subject to the more stringent requirements under Subpart Cf

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Subpart Cf Rulemaking Process

- States submit plans by May 30, 2017
- EPA approves or disapproves plans or plan revisions within four months of receipt
- EPA proposes a Federal plan for States that either do not submit a plan or submit a plan that is not approvable

To: Pruitt, Scott[Pruitt.Scott@epa.gov]
From: Dilley, Shannon@ARB
Sent: Mon 4/24/2017 10:51:09 PM
Subject: Notice: Public Hearing to Consider California's State Plan to Implement the Federal Emission Guidelines for MSW Landfills
2017 May Board Meeting Notice.pdf
2017-4-23 California State Plan.pdf

Dear Mr. Pruitt,

The California Air Resources Board is providing U.S. Environmental Protection Agency with notice of the public meeting along with the proposed California State Plan to implement the emission guidelines and compliance timelines for municipal solid waste landfills under 40 CFR Part 60, Subpart Cf. The notice and proposed California State Plan are being provided pursuant to the requirements of 40 CFR Part 60, Subpart B. The notice, proposed California State Plan, and appendices can be found at: https://www.arb.ca.gov/cc/landfills/landfills.htm under the "*California's State Plan*" section.

The Board meeting will occur on May 25, 2017. Please review the attached Board meeting notice for details and do not hesitate to contact me should you have any further questions.

Thank you.

Shannon Martin Dilley

Staff Attorney

California Air Resources Board | Legal Office

1001 I Street, 23rd Floor

Sacramento, CA 95814

Shannon.Dilley@arb.ca.gov

Ph. 916.322.3940

California Environmental Protection Agency
Air Resources Board

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CALIFORNIA AIR RESOURCES BOARD

NOTICE OF PUBLIC MEETING TO CONSIDER CALIFORNIA'S PROPOSED STATE PLAN FOR THE FEDERAL MUNICIPAL SOLID WASTE LANDFILL EMISSION GUIDELINES

The Air Resources Board (ARB or Board) will conduct a public meeting at the time and place noted below to receive staff's recommendations regarding California's compliance strategy with recently finalized federal rules to reduce methane and non-methane organic compounds (NMOCs) from existing municipal solid waste (MSW) landfills.

DATE:	May 25, 2017
TIME:	9:00 a.m.
LOCATION:	California Environmental Protection Agency Air Resources Board Byron Sher Auditorium 1001 I Street Sacramento, California 95814

This item will be considered at a one-day meeting of the Board, which will commence at 9:00 a.m., May 25, 2017. This item is scheduled to be heard on the Board's Consent Calendar. All agenda items on the Consent Calendar – unless removed upon the request of a Board member or if someone in the audience submits a request-to-speak card on that item – will be voted on by the Board at the beginning of the public meeting.

Background

In 1997, the United States Environmental Protection Agency (U.S. EPA) issued its first federal rule, also known as emission guidelines (EG), designed to reduce NMOCs. The EG are implemented under the section 111(d) state planning framework, in which states must submit compliance plans to translate U.S. EPA's EG requirements into State regulations, which U.S. EPA approves and makes federally enforceable.

At that time, ARB worked with the California Air Pollution Control Officers Association (CAPCOA) and affected air districts to develop a model rule consistent with the 1997 federal requirements. The air districts then adopted rules based on the model rule and submitted them to ARB. ARB reviewed submitted rules for consistency with the jointly developed model rule, then compiled and submitted them as California's State Plan, which was subsequently approved by U.S. EPA.

Since the adoption of the initial landfill EG, California has made significant progress in reducing emissions from landfills. In 2010, ARB adopted its statewide Landfill Methane Rule (LMR). Similar to the EG, the LMR requires affected sources to control their landfill gas emissions by monitoring their landfills, keeping records, reporting their

emissions and installing gas collection and control systems if the emissions reach certain thresholds.

On August 29, 2016, U.S. EPA published updates to the EG for existing landfills, again under section 111 of the federal Clean Air Act. The updated EG includes provisions that will nationally regulate more landfills and requires more stringent emissions control techniques compared to the requirements in the 1997 EG. To comply with the EG, affected states are required to submit State Plans for review and approval by U.S. EPA. States may submit plans that are more stringent than the requirements of the EG. These plans are due to U.S. EPA by May 30, 2017.

ARB is charged with preparing California's State Plan. The proposed State Plan is designed to comply with this important federal rule. ARB staff has prepared this proposed State Plan with the assistance of an interagency working group and after conducting a workshop on January 10, 2017.

ARB is proposing to comply with the EG requirements by submitting its LMR as its compliance strategy. Staff is submitting the LMR as California's State Plan because the LMR is more stringent, achieving greater emissions reductions. Staff estimates that the LMR regulates 29 landfills that would not be regulated under an updated EG. In addition, all of the landfills that would be required to install new controls under the updated EG have already installed controls under the LMR. The LMR also has climate co-benefits because it reduces emissions by at least an additional 87,173 metric tons of CO_2 -equivalent compared to the reductions that would be achieved under the updated EG. In addition to achieving greater public health and climate benefits, submittal of the LMR as California's State Plan will assist affected sources with complying with both State and federal air quality requirements.

Environmental Analysis

ARB, as the lead agency under the California Environmental Quality Act (CEQA), has reviewed the proposed State Plan and concluded that this is exempt pursuant to CEQA Guidelines §15061(b)(3) because it can be seen with certainty that there is no possibility that the proposed action may result in significant adverse impact on the environment. A brief explanation of the basis for reaching this conclusion is included in the State Plan.

Proposed Action

ARB staff recommends that the Board adopt the proposed State Plan and direct staff to submit the State Plan to U.S. EPA.

Information and Submittal of Comments

Copies of the State Plan may be obtained from ARB's Public Information Office, 1001 I Street, First Floor, Environmental Services Center, Sacramento, California, 95814, April 24, 2017. The State Plan may also be obtained from ARB's website at: https://www.arb.ca.gov/cc/landfills/landfills.htm

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Interested members of the public may present comments orally or in writing at the meeting and may provide comments by postal mail or by electronic submittal before the meeting. ARB requests that written statements on this item be filed at least 10 days prior to the meeting so that ARB staff and Board members have additional time to consider each comment. To be considered by the Board, written comments not physically submitted at the meeting, must be received **no later than 5:00 p.m., May 24, 2017,** and addressed to the following:

Postal mail: Clerk of the Board, Air Resources Board
1001 I Street, Sacramento, California 95814

Electronic submittal: http://www.arb.ca.gov/lispub/comm/bclist.php

Please note that under the California Public Records Act (Government Code section 6250 et seq.), your written and oral comments, attachments, and associated contact information (e.g., your address, phone, etc.) become part of the public record and can be released to the public upon request.

Further inquiries regarding this matter should be directed to Renaldo Crooks, Air Pollution Specialist, Transportation and Toxics Division, at (916) 327-5618 or (designated back-up contact) Tung Le, Manager, Industrial Strategies Division, at (916) 445-1818.

SPECIAL ACCOMMODATION REQUEST

Consistent with California Government Code Section 7296.2, special accommodation or language needs may be provided for any of the following:

- An interpreter to be available at the meeting;
- Documents made available in an alternate format or another language;
- A disability-related reasonable accommodation.

To request these special accommodations or language needs, please contact the Clerk of the Board at (916) 322-5594 or by facsimile at (916) 322-3928 as soon as possible, but no later than ten business days before the scheduled Board meeting. TTY/TDD/Speech to Speech users may dial 711 for the California Relay Service.

Consecuente con la sección 7296.2 del Código de Gobierno de California, una acomodación especial o necesidades lingüísticas pueden ser suministradas para cualquiera de los siguientes:

- Un intérprete que esté disponible en la audiencia;
- Documentos disponibles en un formato alterno u otro idioma;
- Una acomodación razonable relacionados con una incapacidad.

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más pronto posible, pero no menos de diez días de trabajo antes del día programado para la audiencia del Consejo. TTY/TDD/Personas que necesiten este servicio pueden marcar el 711 para el Servicio de Retransmisión de Mensajes de California.

CALIFORNIA AIR RESOURCES BOARD

Richard W. Corey
Executive Officer

Date: April 20, 2017

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our website at www.arb.ca.gov.

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California Environmental Protection Agency
AIR RESOURCES BOARD

California State Plan for Municipal Solid Waste Landfills

Under Clean Air Act Section 111(d)

April 24, 2017

California Environmental Protection Agency
Air Resources Board
1001 I Street
Sacramento, California 95814

California State Plan for Municipal Solid Waste Landfills

April 24, 2017

This State Plan has been reviewed by the staff of the California Air Resources Board (ARB) and approved for publication. Approval does not signify that the contents necessarily reflect the views and policies of ARB.

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*Note: the State Plan and associated appendices are located at: https://www.arb.ca.gov/cc/landfills/landfills.htm under the "*California's State Plan*" section.

EXECUTIVE SUMMARY

On August 29, 2016, the U.S. Environmental Protection Agency (U.S. EPA) published final Emission Guidelines (or "Guidelines") to reduce both methane and non-methane organic compound (NMOC) emissions from existing municipal solid waste (MSW) landfills (81 Fed. Reg. 59275 [Aug. 29, 2019]). The Guidelines apply to "existing" MSW landfills that commenced construction, modification, or reconstruction before July 17, 2014, and that have accepted waste at any time since November 8, 1987, or have additional capacity for future waste acceptance. The Guidelines require the installation of a landfill gas collection and control system (GCCS) at larger MSW landfills that exceed a specified design capacity and NMOC emission threshold.

The Guidelines require that the state submit a plan to the U.S. EPA, which identifies how the state intends to meet the federal requirements contained in the Guidelines. This document presents California's State Plan to implement the Guidelines. It was developed by the California Air Resources Board (ARB) with the assistance of the air quality management and air pollution control districts (districts) and others working together as an ad hoc Landfill 111(d) Workgroup.

1. What do the Guidelines require?

The Guidelines require owners or operators of MSW landfills that have design capacities equal to or greater than 2.5 million megagrams (Mg) by mass and 2.5 million cubic meters (M^3) by volume to install a GCCS at each landfill that (1) accepted waste at any time since November 8, 1987; (2) commenced construction, reconstruction, or modification on or before July 17, 2014; and (3) has a NMOC emission rate greater than or equal to 34 Mg per year (50 Mg for MSW landfills in the closed landfill subcategory) or reaches a surface methane concentration of 500 parts per million (ppmv) or greater, according to optional Tier 4 surface emissions monitoring. Landfills must combust the collected gas at 98 percent efficiency, or provide equivalent control. The federal regulation also contains requirements for surface methane emissions monitoring, wellhead monitoring, recordkeeping, and reporting requirements.

2. Why were the Guidelines developed?

As the waste in a MSW landfill decomposes, it breaks down to form landfill gas which includes methane (50%), carbon dioxide (CO_2) (50%), and NMOCs (<1%). Methane is a potent greenhouse gas (GHG). NMOCs include precursors to photochemical smog (ozone), odorous compounds, and toxics. Toxics are pollutants known or suspected to cause cancer, birth defects, and other serious adverse health effects. The Guidelines are intended to significantly reduce landfill gas emissions from large landfills.

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3. How many existing landfills will be affected by the Guidelines?

The U.S. EPA has identified, and ARB concurs, that there are a total of 195 MSW landfills in California that are subject to the Guidelines. These landfills are also subject to California's Landfill Methane Regulation (LMR). Of these, 106 are required to install GCCS. All 106 landfills requiring controls are subject to the LMR and have already installed GCCS. A table of MSW landfills that are subject to the Guidelines is provided in Appendix C.

4. What is the purpose of the State Plan?

The purpose of the State Plan is to implement the requirements of the Guidelines specified in 40 Code of Federal Regulations (CFR) Part 60, Subpart Cf--Emission Guidelines and Compliance Times for MSW Landfills. The Guidelines apply to existing MSW landfills that have accepted waste since November 8, 1987, or have the capacity to accept future waste and are not new (i.e., not subject to the New Source Performance Standards – 40 CFR Subpart XXX). Section 111(d) of the federal Clean Air Act (CAA) and 40 CFR Part 60 Subpart B (Adoption and Submittal of State Plans for Designated Facilities) require ARB and the districts to submit a State Plan to the U.S. EPA Regional Administrator by May 30, 2017.

5. What are the major elements of the State Plan?

The major elements of the State Plan are a description of the legal basis and authority to implement the Guidelines, emission standards and compliance times, procedures (such as test methods) used for determining compliance with the emissions standards, legally enforceable increments of progress towards compliance, source and emission inventories of designated facilities, provisions for annual emission reporting and progress reports on enforcing the Guidelines, and a description of public participation in implementing the Guidelines.

6. What is the status of the Guidelines implementation?

This document demonstrates that California's statewide LMR is procedurally equal to and substantively more stringent than the federal Guidelines, not only achieving, but exceeding the reductions specified in the Guidelines. Therefore, the LMR is being submitted as the State's plan to implement the Guidelines. California's LMR which reduces emissions of methane and NMOCs from MSW landfills was approved by the Board on June 25, 2009. The LMR became effective on June 17, 2010; it requires owners and operators of certain uncontrolled MSW landfills to install GCCS's and requires existing and newly installed GCCSs to operate in an optimal manner. The regulation is a discrete early action measure to reduce GHG emissions under California's Assembly Bill 32 (AB 32).

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In every relevant instance, the LMR produces results as or more stringent than the Guidelines require. The LMR has improved how California captures and controls landfill gas emissions. Prior control devices were only required to achieve a NMOC destruction efficiency of 98 percent. Under the LMR, most control devices must achieve a methane destruction efficiency of at least 99 percent. Prior to the LMR, most landfills were only required to meet an instantaneous surface emission standard of 500 ppmv. Under the LMR, landfills must meet both an instantaneous surface emission standard of 500 ppmv and an integrated surface emission standard of 25 ppmv. By controlling landfill gas, you control emissions of methane, CO_2, NMOC, toxic substances, and odorous compounds.

Landfill owners and operators are familiar with the requirements of the LMR and many key requirements in the LMR mirror those found in the Guidelines. Should U.S. EPA approve the LMR as California's compliance plan, recognizing that it provides equivalent or greater reductions, sources complying with the requirements of California's LMR will also comply with the Guidelines. A copy of the LMR is located at: https://www.arb.ca.gov/regact/2009/landfills09/landfillfinalfro.pdf.

I.

INTRODUCTION

ARB is a world leader in addressing climate change, and fully supports U.S. EPA's rulemaking efforts to reduce both methane and NMOC from landfills. Recognizing the importance of reducing methane emissions, ARB's first Scoping Plan,[1] identifies methane reductions from landfills as a priority discrete early action measure in California's suite of GHG-reduction measures. As a result, ARB adopted the LMR as a statewide regulation[2] which became effective on June 17, 2010. As demonstrated in Appendix F "Emissions Reductions from California's Landfill Methane Regulation Beyond the Emission Guidelines," ARB estimates that, in addition to the methane reductions that could be realized with implementation of the Guidelines, the LMR regulates an additional 29 landfills in California, resulting in an additional 87,173 metric tons of CO_2e per year[3] of GHG reductions and 195 short tons per year of NMOC.

Further demonstrating that reducing landfill emissions can play a key role in meeting our climate change goals, the Board recently approved the Short-Lived Climate Pollutant Reduction Strategy,[4] which includes targets for the diversion of organics from landfills by 50 percent of 2014 levels by 2020, and 75 percent of 2014 levels by 2025. We anticipate that this measure will result in an additional reduction of 4 million metric tons of methane in 2030, which results in 14 million tons of methane reduced over the lifetime of waste decomposition. Finally, ARB's 2017 Climate Change Scoping Plan Update[5] highlights our past accomplishments and identifies additional waste management sector measures to reduce GHG emissions.

As California's state plan, the LMR builds on ARB's existing programs that, together, significantly reduce landfill emissions. Although there are some non-substantive differences between California's LMR and the Guidelines, the LMR imposes fundamentally similar procedural requirements on operators and is more stringent in substance than the Guidelines because it applies to smaller landfills (in addition to larger landfills) and has more stringent requirements for methane collection and control, component leak testing, and surface emissions monitoring and compliance time

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[1] California Air Resources Board, *Climate Change Scoping Plan* (2008) available at https://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf was written in response to the California Global Warming Solutions Act of 2006, Health & Saf. Code § 38500, et seq., Assembly Bill 32 (Nunez, ch. 488, Stats. of 2006).

[2] Methane Emissions from Municipal Solid Waste Landfills, Cal. Code Regs. tit., § 95460, et seq., available at https://www.arb.ca.gov/regact/2009/landfills09/landfillfinalfro.pdf.

[3] Based on 2015 Emissions.

[4] California Air Resources Board, *Short-Lived Climate Pollutant Reduction Strategy* (Mar. 2017) available at https://www.arb.ca.gov/cc/shortlived/meetings/03142017/final_slcp_report.pdf.

[5] California Air Resources Board, *The 2017 Climate Change Scoping Plan Update* (Jan. 2017) available at https://www.arb.ca.gov/cc/scopingplan/2030sp_pp_final.pdf.

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frames. It also regulates all of the landfills subject to subpart Cf, as well as an additional 29 landfills, and delivers more reductions than the Guidelines.

This State Plan is organized as follows:

- Appendix A contains California's LMR which was approved by the Board on June 25, 2009 as an early action measure under AB 32 and which became effective on June 17, 2010.

- Appendix B supplements the demonstration of legal authority in this plan. It contains the 1997 Attorney General's certification that the laws of California provide adequate authority to carry out the State Plan. It also contains the 1993 Attorney General's certification that the laws of California provide adequate authority to implement Title V (Operating Permits) of the CAA. The provisions of law under these two certifications were previously submitted and approved under 40 CFR Part, 60, Subpart B.[6]

- Appendix C provides a listing of MSW landfills that are affected by the Guidelines.

- Appendix D contains the meeting notices for ARB's workshop dated January 10, 2017, and Board hearing dated May 25, 2017, informing the public of California's 111(d) MSW landfill compliance strategy, along with other relevant information.

- Appendix E is a comparison of the major provisions of the Guidelines and California's LMR.

- Appendix F identifies emissions reductions from California's LMR beyond the Guidelines.

- Appendix G contains the MOUs signed between ARB and California's districts regarding implementation and enforcement of California's LMR.

- Appendix H contains the relevant provisions of law that were not previously certified or submitted under the 1997 Guidelines State Plan, or the 1993 operating permit State Plan, and are therefore required to be submitted under 40 CFR Part 60, Subpart B.

[6] 40 CFR §60.26.

II.

FEDERAL REQUIREMENTS

A. EMISSION GUIDELINES FOR MUNICIPAL SOLID WASTE LANDFILLS

The U.S. EPA promulgated the Guidelines for MSW landfills to implement section 111(d) of the CAA. The Guidelines require the states to submit a plan that establishes standards and compliance schedules for existing landfills (e.g., standards for the landfill GCCS and compliance schedule for installing controls). The Guidelines establish minimum criteria that a state is to use in developing its emissions standards. ARB is the state agency charged with CAA compliance and with greenhouse gas regulations, and is responsible for this plan. However, California air districts are otherwise the primary regulators of stationary sources and, recognizing their important role, the ARB LMR is implemented in partnership with the air districts. Therefore, ARB and the districts are together responsible for developing a plan for implementing the Guidelines and submitting the plan to the U.S. EPA Administrator for approval. ARB and districts have determined that submittal of the LMR as California's State Plan is the best strategy for compliance with the Guidelines.

An existing MSW landfill subject to the requirements of the Guidelines is a landfill that commenced construction, modification, or reconstruction before July 17, 2014, and has accepted waste at any time since November 8, 1987, or has additional capacity for future waste deposition. The Guidelines require owners or operators of MSW landfills meeting these conditions, and that have design capacities equal to or greater than 2.5 million Mg by mass and 2.5 million M^3 by volume to install a GCCS at each landfill that:

- Accepted waste at any time since November 8, 1987;
- Commenced construction, reconstruction, or modification on or before July 17, 2014; and
- Has a NMOC emission rate greater than or equal to 34 Mg per year (50 Mg for MSW landfills in the closed landfill subcategory) or the optional Tier 4 surface emissions monitoring shows a surface emission concentration of 500 ppmv methane or greater.

The collected gas must be combusted at 98 percent efficiency, unless equivalent control is implemented. The federal regulation also contains requirements for surface methane emissions monitoring, wellhead monitoring, and recordkeeping and reporting.

Owners and operators of MSW landfills subject to the Guidelines are not required to comply with its requirements until such time U.S. EPA has approved the State Plan or promulgated a federal plan for districts that fail to submit their own plans through ARB.

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However, all of these landfills continue to be regulated under, and responsible for compliance with, ARB's LMR, regardless of federal implementation status.

B. STATE PLAN

California is submitting its LMR as its State Plan for implementing the Emission Guidelines for existing MSW landfills as required by Section 111(d) of the CAA and 40 CFR Part 60 Subpart B. Under this approach, landfills subject to the Guidelines (40 CFR Part 60, Subpart Cf) will have a federally enforceable obligation to comply with the LMR, while other landfills not subject to the Guidelines will continue to have only state-enforceable obligations. U.S. EPA could recognize this distinction in its notice of decision.

Much like its counterpart provision for criteria pollutant planning, section 110, section 111(d) is intended to provide states with appropriate discretion to secure federally-required emission reductions. ARB appreciates that U.S. EPA has recognized, in the recent section 111(d) rulemaking for the power sector, that state measures can supply appropriate compliance pathways if they satisfy federal requirements. This degree of state flexibility is important to integrate successful state programs into the federal structure, consistent with the cooperative federalism approach of the CAA. It also helps to ensure that innovative state rulemakings can inform progress on the federal level, and perhaps be adopted by other states. ARB looks forward to working with U.S. EPA to ensure that the LMR can serve to comply with these important federal emissions reduction requirements.

ARB accordingly demonstrates herein that the LMR is in fact more stringent than the Guidelines. Capturing methane captures NMOC because it is all landfill gas and the control system does not distinguish the compounds within the landfill gas. The LMR has more stringent requirements for methane collection and control, component leak testing, surface emissions monitoring, and compliance time frames. It also applies to more landfills than does the federal rule. In addition, California's statewide LMR has been in effect since 2010 and is being jointly implemented and enforced by ARB and the districts.

The LMR, in sum, nets a greater reduction in methane emissions as described above, and U.S. EPA approval of the LMR as California's compliance plan will reduce regulatory burden on operators while achieving all of the goals of the Guidelines. Affected landfill owners and operators are already familiar with the LMR, and many key requirements in the Guidelines mirror those found in the LMR. Sources complying with the requirements of California's more stringent LMR will reduce their emissions at least as much as the Guidelines require. A copy of the LMR is provided in Appendix A and can also be found at: https://www.arb.ca.gov/regact/2009/landfills09/landfillfinalfro.pdf.

A comparison of the key provisions of the Guidelines and California's LMR demonstrating that the LMR satisfies the requirements specified in the Guidelines is provided in Appendix E "Comparison of the Major Provisions of the Emission Guidelines

and California's Landfill Methane Regulation." Appendix F illustrates the emissions reductions from California's LMR that exceed those required by the Guidelines. The State Plan also includes the major components listed below.

1. Legal Basis and Authority; Identification of Enforceable Mechanism

The State Plan must include a demonstration of the state's legal authority to carry out the State Plan. Pursuant to 40 CFR Part 60, Subpart B, section 60.26, states must show they have legal authority, through enforceable mechanisms to "(1) establish emission standards and compliance schedules applicable to designated facilities and pollutants identified under the Guidelines; (2) enforce applicable laws, regulations, standards, and compliance schedules, and seek injunctive relief; (3) obtain information necessary to determine whether designated facilities are in compliance with applicable laws, regulations, standards, and compliance schedules, including authority to require recordkeeping and to make inspections and conduct tests of designated facilities; and (4) require owners or operators of designated facilities to install, maintain, and use emission monitoring devices and make periodic reports to the State on the nature and amounts of emissions from such facilities and for the State to make such data available to the public."

ARB's authority to regulate and plan for compliance with the CAA requirements is extensive. By statute, ARB is "designated as the air pollution control agency for all purposes set forth in federal law," including 111(d) of the CAA, and Guidelines promulgated under that section.[7] This includes all acts "as may be necessary for the proper execution of its duties," including adopting and implementing rules and regulations.[8] ARB also has authority to gather information on air pollutants and their sources.[9] ARB also has primary AB 32 authority over sources of GHG emissions, with the authority to coordinate with other agencies for implementation and enforcement.[10] Districts also have authority to implement and enforce this State Plan pursuant to an MOU. California Health and Safety Code section 40000 states that the districts have primary responsibility for control of stationary sources. In the case of the LMR, section 95473 allows ARB to enter into agreements with the districts to implement and enforce the LMR.[11] ARB signed an MOU with most districts for implementation and enforcement of the LMR. Under these provisions, ARB and the districts have ample statutory and regulatory authority to develop, implement, and enforce the State Plan.

Specific authority is outlined below. Copies of referenced laws or regulations are attached in Appendix H and include the date of adoption, last amendment date, and effective date, where applicable. The specific authorities provided are contained in statutes, regulations, and MOUs, which are or will be fully effective by the time the State

[7] Health & Saf. Code §39602.
[8] Health & Saf. Code §§39600, 39601.
[9] Health & Saf. Code § 39607.
[10] Health & Saf. Code § 38501.
[11] Health & Saf. Code §§ 38501, 38510, 38560, 38560.5, 38580, 39600, 39601; Cal. Code Regs., tit. 17, § 95473.

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Plan is approved, and include those identified below and those incorporated by reference from Appendix B, the enclosed letter dated February 3, 1997, addressing California's authority to implement the initial Guidelines for Municipal Solid Waste Landfills promulgated in 1997; and the enclosed letter dated November 12, 1993, addressing California's authority to implement Title V (Operating Permits) of the CAA. In both letters, the Attorney General certified that the State and districts have the authority to implement the federal CAA Guidelines and Title V operating permits. Although such a certification is not required by the Guidelines, it further supports the demonstration here.

Authority to Adopt Emission Standards and Enforceable Conditions

State law provides authority for ARB and California's 35 districts to: (1) adopt rules and regulations establishing emission standards and other requirements applicable to the designated facilities; and (2) issue operating permits to the designated facilities and to incorporate into permits conditions that assure compliance with each applicable requirement of the CAA. State law also provides for prohibition of permit issuance to facilities that do not comply with applicable requirements. Applicable requirements include the requirements of Guidelines promulgated under CAA section 111(d). Applicable requirements also include district prohibitions against discharge of air contaminants under Health and Safety Code section 41700.

These authorities are cited in the enclosed February 3, 1997 letter, page 1, "Adoption of Emission Standards and Enforceable Conditions," page 2, "Enforcement of the Relevant Laws, Regulations, Standards, and Compliance Schedules," and page 5, "Retention of Delegated Enforcement Authority," and the enclosed November 12, 1993 letter, pages 1-3, "Authority to Issue Permits," page 7, "Incorporation of All Applicable Requirements into Permit," and as additionally specified below.

- *Federal Authority:* CAA §§111(b)(1)(A) [42 U.S.C. §7411(b)(1)(A)], 111(d) [42 U.S.C. §7411(d)]; 40 CFR Part 60, Subpart CC: 40 CFR §§ 60.33c, 60.34c, 60.35c, and 60.36c; 40 CFR Part 70, Subpart C: 40 CFR §§ 70.2, 70.3(a), and 70.3(b); 40 CFR Part 60, Subpart Cf: 40 CFR §60.30f, 60.31f, 60.32f, 60.33f, 60.34f, 60.35f, 60.36f, 60.37f, 60.38f, 60.39f, 60.40f, and 60.41f.

- *Statutory Authority:* Health and Safety Code §§ 38501, 38510, 38551, 38560, 38560.5, 38562, 38566, 38580, 38592, 38597, 39002, 39003, 39600, 39601, 39602.5, 39659, 40000, 40001, 40506.1, 40752, 41500, 41511, 41513, 40702, 41700, 41701, 42300, 42300.1, 42301.1, 42301.6, 42301.12, 42315, 42350, 42353, 42400, 42400.1, 42400.2, 42400.3, 42400.3.5, 42400.4, 42400.8, 42401, 42402.1, 42402.2, 42402.4, 42403, and 42450.

- *Regulatory Authority:* Cal. Code Regs. tit, 17 §§ 95461, 95463, 95464, 95465, 95469, 95472, and 95473.

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Authority to Adopt Compliance Schedules

State law provides authority for the districts to issue permits to sources that are not in compliance with applicable requirements, and to include compliance schedules in permits to bring sources into compliance through adoption of compliance schedules applicable to the designated facilities and pollutants. These authorities are cited in the enclosed February 3, 1997 letter, pages 3-4, "Adoption of Compliance Schedules," and the enclosed November 12, 1993 letter, pages 3-4, "Authority to Issue Permits to Noncomplying Sources" and as additionally specified below.

- *Federal Authority*: CAA §§111(b)(1)(A) [42 U.S.C. §7411(b)(1)(A)], 111(d) [42 U.S.C. §7411(d)]; 40 CFR Part 60, Subpart CC: 40 CFR §60.36c; 40 CFR Part 60, Subpart Cf: 40 CFR §§60.32f and 60.36f.

- *Statutory Authority*: Health and Safety Code §§ 39601, 40702, 41703, 42301.1, 42301.5, 42315, 42353, 42357, and 42358.

- *Regulatory Authority:* Cal. Code Regs., tit. 17, §§ 95463, 95464, 95469, 95470, and 95473.

Authority to Enforce Relevant Laws, Regulations, Standards, and Compliance Schedules and Seek Injunctive Relief

State law provides civil and criminal enforcement authority to enforce relevant laws, regulations, standards, and compliance schedules, including authority to seek injunctive relief, as cited in the February 3, 1997 letter, page 3, "Enforcement of Relevant Laws, Regulations, Standards, and Compliance Schedules" and in the enclosed November 12, 1993 letter, page 11, "Enforcement of Permits Program Requirements" and as additionally specified below.

- *Federal Authority*: CAA §§111(b)(1)(A) [42 U.S.C. §7411(b)(1)(A)], 111(d) [42 U.S.C. §7411(d)]; 40 CFR Part 60, Subpart CC: 40 CFR §60.36c; 40 CFR Part 60, Subpart Cf: 40 CFR §§ 60.30f, 60.31f, 60.32f, 60.33f, 60.34f, 60.35f, 60.36f, 60.37f, 60.38f, 60.39f, 60.40f, and 60.41f.

- *Statutory Authority*: Health and Safety Code §§ 39601, 39659, 41513, 42300.1, 42301, 42453, 42356, 42362, 42402, and 42402.3.

- *Regulatory Authority*: Cal. Code Regs., tit.,17 § 95473.

Authority to Obtain Information

State law provides authority to obtain information necessary to determine whether designated facilities are in compliance with applicable laws, regulations, standards, and compliance schedules, including authority to require recordkeeping and to make inspections and conduct tests of designated facilities; and provides authority to request

information from regulated sources regarding their compliance status as cited in the February 3, 1997 letter, pages 3-5, "Authority to Obtain Information" and "Authority to Require Recordkeeping, Make Inspections, and Conduct Tests," and in the enclosed November 12, 1993 letter, page 6, "Monitoring, Recordkeeping, and Reporting," and as additionally specified below.

- *Federal Authority:* CAA §§111(b)(1)(A) [42 U.S.C. §7411(b)(1)(A)], 111(d) [42 U.S.C. §7411(d)], 114 [42 U.S.C. §7414]; 40 CFR Part 60, Subpart CC: 40 CFR §60.35c; 40 CFR Part 60, Subpart Cf: 40 CFR §§ 60.36f, 60.37f, 60.38f, and 60.39f.

- *Statutory Authority:* Health and Safety Code §§ 39600, 39601, 39605, 39607, 39659, 41510, 41513, 42301.3, 42303.5, 42336, 42706, 44341, 44344, and 44344.5.

- *Regulatory Authority:* Cal. Code Regs., tit. 17, §§ 95463, 95464, 95470, and 95473.

Authority to Require Recordkeeping, Make Inspections, and Conduct Tests

State law provides authority to require recordkeeping, incorporate recordkeeping requirements into operating permits, provides authority to inspect sources and any records required to determine a source's compliance status, and provides authority to conduct tests as cited in the February 3, 1997 letter, page 4, "Authority to Require Recordkeeping, Make Inspections, and Conduct Tests," and in the November 12, 1993 letter, pages 6-7, "Monitoring, Recordkeeping, and Reporting," page 7, "Inspection/Entry Authority," and as additionally specified below.

- *Federal Authority:* CAA §§111(b)(1)(A) [42 U.S.C. §7411(b)(1)(A)], 111(d) [42 U.S.C. §7411(d)], 114 [42 U.S.C. §7414], 504 [42 U.S.C.7661c]; 40 CFR Part 60, Subpart CC: 40 CFR §§ 60.35c and 60.34c; 40 CFR Part 70, Subpart C: 40 CFR § 70.6(c)(1); 40 CFR Part 60, Subpart Cf: 40 CFR §§ 60.37f, 60.38f, and 60.39f.

- *Statutory Authority:* Health and Safety Code §§ 39601, 40701, 41513, 42707, 44366, 39607, 41510, 41511, 42303, 44340, and 44342.

- *Regulatory Authority*: Cal. Code Regs., tit. 17 §§ 95470 and 95473.

Authority to Require Use of Monitors and Require Emission Reports

State law provides authority to require owners or operators of designated facilities to install, maintain, and use emission monitoring devices and make periodic reports to the State on the nature and amounts of emissions from such facilities and to incorporate monitoring and reporting requirements into operating permits as cited in the February 3, 1997 letter, page 5, "Authority to Require Use of Monitors and Require Emission

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Reports," and in the enclosed November 12, 1993 letter, pages 6- 7, "Monitoring, Recordkeeping, and Reporting" and as additionally specified below.

- *Federal Authority:* CAA §§111(b)(1)(A) [42 U.S.C. §7411(b)(1)(A)], 111(d) [42 U.S.C. §7411(d)]; 40 CFR Part 60, Subpart CC: 40 CFR §§ 60.34c and 60.35c; 40 CFR Part 60, Subpart Cf: 40 CFR §§ 60.33f, 60.34f, 60.35f, 60.36f, 60.37f, 60.38f, 60.39f, and 60.40f.

- *Statutory Authority:* Health and Safety Code §§ 39601, 39607, 39659, 41513, 42315, 42303, 44344.5, and 44344.7.

- *Regulatory Authority:* Cal. Code Regs. tit, 17 §§ 95469, 95470, and 95473.

Authority to Make Emission Data Available to the Public

State law provides authority to make available to the public emissions data, any permit application, compliance plan, permit, and monitoring and compliance certification report, except for information entitled to confidential treatment as cited in the enclosed February 3, 1997 letter, page 5, "Authority to Make Emission Data Available to the Public," and the November 12, 1993 letter, pages 10-11, "Public Access to Permit Information" and as additionally specified below. State law also provides that the contents of an operating permit, except for trade secret information which is not emission data, shall not be entitled to confidential treatment.

- *Federal Authority:* CAA §§111(b)(1)(A) [42 U.S.C. §7411(b)(1)(A)], 111(d) [42 U.S.C. §7411(d)], 114(c) [42 U.S.C. §7414(c)], 502(b)(8) [42 U.S.C. §7661a(b)(8)], 503(e) [42 U.S.C. §7661b(e)], 5 U.C.S. §552; 40 CFR Part 70, Subpart C: 40 CFR §70.4.

- *Statutory Authority:* Health and Safety Code §§ 39601, 39601.5, 39604, 39607, 41513, 42301.6, 42337, 42409; and Gov. Code § 6254.7.

- *Regulatory Authority*: Cal. Code Regs., tit. 17, § 91001 and 93300.5.

Authority to Retain Delegated Enforcement Authority

State law provides authority for the State to retain enforcement authority even when such authority is delegated to the districts as cited in the enclosed February 3, 1997 letter on pages 3-4 "Retention of Delegated Enforcement Authority" along with the November 12, 1993 letter on page 11, "Enforcement of Permits Program Requirements," and as additionally specified below.

- *Federal Authority*: CAA §§111(b)(1)(A) [42 U.S.C. §7411(b)(1)(A)], 111(d) [42 U.S.C. §7411(d)]; 40 CFR Part 60, Subpart A: 40 CFR § 60.10; 40 CFR Part 60, Subpart Cf: 40 CFR § 60.30f.

- *Statutory Authority*: Health and Safety Code §§ 38510, 38580, 39001, 39002, 39003, 39600, 39601, 39602, 39605, 40000, 40001, 40701, 40702, 41500, 41513, 42362, 44365, and 42362.

- *Regulatory Authority*: Cal. Code Regs. tit., 17 95473; Memorandum of Understanding Between the California Air Resources Board and Districts Regarding Implementation and Enforcement of Regulation to Reduce Methane Emissions from Municipal Solid Waste Landfills.

2. Emission Standards and Compliance Schedules

The emission standards adopted by the state cannot be less stringent than the Guidelines. In addition, pursuant to 40 CFR Part 60 Subpart B, Adoption and Submittal of State Plans for Designated Facilities, section 60.24(c), compliance schedules must match those of the Guidelines. As we explain below, the LMR is more stringent than the Guidelines, and its reporting provisions and compliance schedules allow ARB and the districts to ensure that compliance is maintained, and to file any necessary reports with U.S. EPA.

Emission Standards

In every relevant instance, the LMR produces results as or more stringent than the Guidelines require. The Guidelines require that GCCS must be operated so that the methane concentration is less than 500 ppmv above background at the surface of the landfill. Section 95465 of the LMR requires that the GCCS be operated so that at no location on the landfill surface exceeds methane concentrations of 500 ppmv instantaneous surface methane emission standard, in addition to a 25 ppmv integrated surface emission standard; which is more stringent than the Guidelines.

The Guidelines require that a control device must achieve a NMOC reduction efficiency of 98 percent. Carbon adsorption and passive GCCS are allowed if specified conditions are met. Section 95464 of the LMR requires a methane reduction efficiency of 99 percent for most control devices; which is more stringent than the Guidelines. In addition, section 95464(b)(1)(B) establishes a component leak standard of 500 ppmv that is not specified in the Guidelines. The LMR does not allow the use of carbon adsorption or passive GCCS.

For all of these reasons, ARB is confident that continuing compliance with the LMR will satisfy the pollution reductions required by the Guidelines.

Compliance Schedules

In general, the LMR's compliance timeframes are more stringent than the Guidelines as illustrated in Appendix E and discussed in section II, subsection 4 on page 15.

3. Test Methods; Monitoring, Recordkeeping and Reporting Requirements

The State Plan must contain test methods and procedures for determining compliance with the emission standards. States can choose test methods or procedures that are different than those specified in 40 CFR Part 60. However, the test methods or procedures must be shown to be equivalent to the federal requirements including monitoring, recordkeeping, and reporting procedures.

Test Methods

The Guidelines requires the use of the following test methods and procedures:

- Specified equations are to be used for determining: (1) the NMOC emission rate if the actual year-to-year solid waste acceptance rate is known, (2) the NMOC emission rate if the actual year-to-year solid waste acceptance rate is unknown, (3) determining NMOC emission rate when a gas system can be removed, (4) control efficiency, and (5) maximum gas generation flow rate.

- Method 21 must be used for the measurement of methane utilizing a gas detector.

- Method 2E must be used to determine site-specific methane generation rate.

- Methods 25, 25C, or 18 of appendix A must be used for the performance test to determine compliance and to determine NMOC concentration.

- Method 3 or 3A must be used to determine oxygen for correcting the NMOC concentration as hexane to 3 percent.

- Method 3C must be used to determine the nitrogen level and Method 3A, 3C, or ASTM D6522-11 must be used to determine the oxygen level by using an oxygen meter for wellhead monitoring.

As illustrated in Appendix E, and in section 95471 *"Test Methods and Procedures,"* the LMR requires the use of the similar test methods and procedures. Both the Guidelines and LMR contain requirements for wellhead monitoring. The LMR focuses on requiring pressure monitoring for fire prevention, and to demonstrate sufficient vacuum on individual extraction wells in order to minimize methane emissions.

Monitoring

Both the Guidelines and the LMR require surface methane emissions monitoring. However, the LMR again goes further. It requires both instantaneous and integrated surface methane emissions monitoring. Integrated monitoring averages the point source measurements and is a good indicator of how well the gas collection system is operating overall. The LMR provides an incentive for establishing a history of

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compliance with the surface methane emission standards. If in compliance, the landfill owner or operator of a closed or inactive MSW landfill can decrease their sampling frequency from quarterly to annually.

The Guidelines provides a walking pattern spacing of 30 meters (or about 100 feet), whereas section 95471(c)(1)(B) of the LMR requires an initial walking pattern spacing of 25 feet, then 100 feet once consistent compliance is demonstrated and maintained.

Recordkeeping and Reporting Requirements

The Guidelines require recordkeeping provisions for the landfill and GCCS design; GCCS monitoring data; performance test data; and emissions related data. Reporting are required for a design capacity report, amended design capacity report, design plan, closure notification, equipment removal report, annual report, NMOC emission rate report, and an initial performance test report.

As illustrated in Appendix E, the LMR requires similar recordkeeping provisions for the landfill and GCCS design; GCCS monitoring data; performance test data; and emissions related data. Reporting provisions required by the LMR include a waste-in-place (WIP) report, landfill gas heat input capacity (HIC) report, design plan, amended design plan, closure notification, equipment removal report, annual report, and an initial performance test report, in addition to an annual source test report; which is more stringent than the Guidelines.

4. Legally Enforceable Increments of Progress Toward Compliance

Rules or other mechanisms developed by the states to implement the Guidelines must include enforceable compliance dates for submitting the final control plan, awarding contracts for construction of the GCCS, initiating on-site construction or installation of the GCCS, completing on-site construction or installation of the GCCS, and final compliance. The LMR, already in force, has already moved all covered landfills toward compliance as all of these landfills were already required to install a GCCS.

The Guidelines require that:

- MSW landfills having a design capacity of ≤ 2.5 million Mg by mass and 2.5 million m^3 by volume, must submit an initial design capacity report within 90 days of the U.S. EPA approved State Plan.

- MSW landfills having a design capacity of ≥ 2.5 million Mg by mass and 2.5 million m^3 by volume, must submit a NMOC emission rate report within 90 days of the U.S. EPA approved State Plan.

- A Design Plan must be submitted within one year after determining NMOC emission rate is ≥ 34 Mg/yr (or ≥ 50 Mg/yr for closed landfill subcategory).

- If a MSW landfill has a design capacity of ≥ 2.5 million Mg by mass and 2.5 million m^3 by volume, a GCCS must be installed:

    - Within 30 months after NMOC emission rate is ≥ 34 Mg/yr, or within 30 months after NMOC emission rate is 50 Mg/yr for closed landfill subcategory; or

    - Within 30 months after the date of the most recent NMOC emission rate is ≥ 34 Mg/yr, or Tier 4 surface emissions monitoring shows a surface methane emission measurement of ≥ 500 ppmv.

- Initial Performance Test of GCCS within 180 days from initial startup.

The LMR has more stringent compliance timeframes, which are already being met by most landfills. The compliance timeframes require:

- Active MSW landfills having <450,000 tons of WIP, must submit a WIP report within 90 days of effective date of the LMR.

- MSW landfills having ≥ 450,000 tons of WIP or upon reaching 450,000 tons of WIP, must submit a landfill gas HIC report within 90 days of effective date of the LMR and annually thereafter if the HIC is ≥ 3.0 million British thermal units per hour (MMBtu/hr).

- MSW landfills that have not yet installed a GCCS must submit a Design Plan by June 17, 2011; or within one year after determining landfill gas HIC is ≥ 3.0 MMBtu/hr; or within one year of detecting any leak on the landfill surface > 200 ppmv pursuant to the surface methane demonstration test.

- MSW landfills having a WIP of ≥ 450,000 tons and gas HIC of ≥ 3.0 MMBtu/hr, must install a GCCS within the following timeframe after approval of the Design Plan:

    - 18 months for active MSW landfills.

    - 30 months for closed or inactive MSW landfills.

- MSW landfills must conduct Initial Performance Test of the GCCS within 180 days from the initial start-up and annually thereafter. Testing is allowed to be performed every three years if specified conditions are met.

5. Source and Emission Inventories

The State Plan must contain a complete source and emissions inventory of existing MSW landfills in California that are regulated by the Guidelines. The source inventory must include all existing MSW landfills that have accepted waste since

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November 8, 1987. For the purpose of the State Plan, the source inventory must include MSW landfills with design capacities above the 2.5 million Mg by mass and 2.5 million M^3 by volume, along with the names and locations of the landfills, and their design capacities if this information is available.

The emission inventory must provide estimates of the NMOC emissions from the large MSW landfills that are subject to the Guidelines. These requirements are met by Appendix C, which contains source and emissions inventory information for MSW landfills in California that are subject to the Guidelines as identified by U.S. EPA and the districts.

Additional information on California landfills is available in the California Department of Resource Recovery and Recycling's (CalRecycle) Solid Waste Information System (SWIS) database. Users are able to query SWIS on multiple parameters. The database is updated continuously and is located at: http://www.calrecycle.ca.gov/SWFacilities/Directory/Search.aspx.

6. Annual Emission Reporting and Progress Reports

40 CFR Part 60, Subpart B, sections 60.25 (a), (e) and (f) require state plans to provide for the submittal of annual progress reports to U.S. EPA on the status of enforcing the Guidelines. Each progress report must include summaries of enforcement actions taken and the progress made on each, a list of designated facilities that have ceased operation during the reporting period, updated NMOC emission inventories for MSW landfills that are subject to the Guidelines, and copies of technical reports on all performance testing and compliance information.

ARB believes that the annual progress reporting requirements can be satisfied through the annual reports received from the districts that signed the MOU to implement and enforce the LMR, and MSW landfills that are subject to the LMR. ARB will aggregate and submit these reports.

MOU District Annual Reporting

Districts that have signed an MOU to implement and enforce the LMR are required to submit annual reports to ARB summarizing:

- Any Notice of Violations (NOV) or other citations issued by the district specifying the issue date, landfill name, and section of the LMR cited for each NOV or other citation.

- The total number of instantaneous surface methane readings of 200 ppmv or greater pursuant to sections 95470(a)(1)(D) and 95471(c)(2)(A) of the LMR.

- A summary of alternative compliance options approved by the district pursuant to section 95468 for sections 95464, 95469, and 95471 of the LMR. The district

must provide the landfill name, address, nature of request, approval date, and section of the LMR cited for each alternative compliance option approved.

- The emission data required in section 95470(b)(3)(A) through 95470(b)(3)(I) of the LMR for each landfill since the previous annual report, except a topographic map of the landfill need only be submitted on a one-time basis.

Twenty-three districts have signed MOUs. ARB implements and enforces the LMR in those districts that have not signed an MOU.

Annual Reports

Section 95470 of the LMR requires MSW landfill owners and operators to submit an annual report for the period of January 1 through December 31 of each year. The annual report must contain detailed information about the landfill design, including GCCS monitoring data; performance test data; and emissions related data. Additionally, there are some specific reports that may be submitted under specific conditions, such as a WIP report for landfills with less than 450,000 tons of WIP or a closure notification report for landfills that are ceasing waste acceptance and closing. Any landfill seeking to decommission the GCCS must submit an equipment removal report. These reporting requirements are similar to the Guidelines' requirements. Again, ARB commits, as part of this State Plan, to aggregate and submit these reports in cooperation with the districts and regulated landfills.

7. Public Participation

The State Plan and U.S. EPA's general regulations for state plan submittals require that noticed public hearings be held on proposed compliance plans and that the state certify that such hearings have been held, and that all interested parties were notified at least 30 days prior to the date of the hearing. The certification submittal must include a list of all witnesses who offered testimony at the hearings, their organizational affiliations, and a brief summary of each presentation or submission.

On January 10, 2017, after providing notice on December 28, 2016, ARB held a public meeting to discuss California's strategy for compliance with U.S. EPA's new federal requirements for MSW landfills. Notice was provided to the public and all interested parties via internet list serves, email, interagency working group meetings, and telephone communications.[12] ARB presented two paths for compliance with the Guidelines: (1) using the LMR as California's State Plan, and (2) districts revising their existing rules to comply with the Guidelines.

[12] See 40 CFR Part 60, Subpart B, § 60.23.

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ARB regularly consulted with the districts, the California Air Pollution Control Officers Association (CAPCOA), and solid waste industry representatives. ARB has received comments from both the districts and the solid waste industry supporting the approach taken in this State Plan.

On May 25, 2017, ARB will hold a second public meeting to discuss ARB's intentions to submit the LMR as California's State Plan. The notice for this meeting along with this State Plan was released on April 24, 2017. ARB also sent the notice and State Plan to U.S. EPA and the districts.

A summary of the comments that were received from the January public meeting, including witness names and affiliations, is provided in Appendix D.

ARB hereby certifies that it held a public meeting that was held in accordance with the notice required by paragraph (d) of 40 CFR Part 60, Subpart B section 60.23.

8. Process for Review and Approval of Site-Specific GCCS Design Plans

The State Plan must include a process for the review and approval of site-specific design plans for the required GCCS.[13] If a landfill's NMOC emissions equal or exceed 34 Mg per year (50 Mg per year for a landfill in the closed subcategory), the landfill owner or operator must submit a site-specific design plan within one year to comply with the Guidelines.[14] The plan must also meet the design specifications for active collection systems or include alternative provisions.[15] This requirement will be satisfied through the LMR and implemented by the districts. The Air Pollution Control Officer (APCO) has the authority to review and to approve or disapprove the site-specific design plans under the LMR and any alternative provisions. In addition, Title V and district operating permit procedures provide for review and approval of permit terms and conditions including site-specific design plan provisions.

[13] See 40 CFR § 60.38f(d).
[14] *Ibid.*
[15] See 40 CFR §§ 60.40f and 60.38f(d).

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III.

ENVIRONMENTAL ANALYSIS

Introduction

This chapter provides the basis for ARB's determination that the proposed State Plan is exempt from the requirements of the California Environmental Quality Act (CEQA).[16] A brief explanation of this determination is provided in section B below. ARB's regulatory program, which involves the adoption, approval, amendment, or repeal of standards, rules, regulations, or plans for the protection and enhancement of the State's ambient air quality, has been certified by the California Secretary for Natural Resources under Public Resources Code section 21080.5 of CEQA. Public agencies with certified regulatory programs are exempt from certain CEQA requirements, including but not limited to, preparing environmental impact reports, negative declarations, and initial studies. ARB, as a lead agency, prepares a substitute environmental document (referred to as an "Environmental Analysis" or "EA") as part of the State Plan prepared for a proposed action to comply with CEQA.[17] If the State Plan is finalized, a Notice of Exemption will be filed with the Office of the Secretary for the Natural Resources Agency and the State Clearinghouse for public inspection.

Analysis

ARB has determined that the proposed State Plan is exempt from CEQA under the "general rule" or "common sense" exemption.[18] The common sense exemption states a project is exempt from CEQA if "the activity is covered by the general rule that CEQA applies only to projects which have the potential for causing a significant effect on the environment. Where it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment, the activity is not subject to CEQA." The proposed State Plan makes a previously analyzed, adopted, and state-enforced California regulation federally enforceable, which is administrative in nature. The continued implementation of an already existing regulation has no potential to adversely affect air quality or any other environmental resource area. Based on ARB's review it can be seen with certainty that there is no possibility that the proposed State Plan may result in a significant adverse impact on the environment; therefore, this activity is exempt from CEQA.

[16] Cal. Code Regs., tit. 14, § 15251(d).
[17] Cal. Code Regs., tit. 17, §§ 60000-60008.
[18] Cal. Code Regs., tit. 14, §15061(b)(3)).

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IV.

APPENDICES

- Appendix A: Landfill Methane Regulation
- Appendix B: 1993 and 1997 Attorney General's Certification of Legal Authority
- Appendix C: Municipal Solid Waste Landfills Affected by the Emission Guidelines
- Appendix D: Public Meeting Notices and Other Relevant Information
- Appendix E: Comparison of the Major Provisions of the Emission Guidelines and California's Landfill Methane Regulation
- Appendix F: Emissions Reductions from California's Landfill Methane Regulation Beyond the Emission Guidelines
- Appendix G: Memoranda of Understanding (MOU) Between California Air Resources Board and Districts Regarding Implementation and Enforcement of Regulation to Reduce Methane Emissions from Municipal Solid Waste Landfills
- Appendix H: Relevant Legal Authorities

*Note: the State Plan and associated appendices are located at: https://www.arb.ca.gov/cc/landfills/landfills.htm under the "*California's State Plan*" section.

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To: Pruitt, Scott[Pruitt.Scott@epa.gov]
Cc: Liz Rumsey[Liz.Rumsey@doj.ca.gov]; Gary E. Tavetian[Gary.Tavetian@doj.ca.gov]; Robert Reiley[rreiley@pa.gov]; Persampieri, Nick[nick.persampieri@vermont.gov]; Garrahan Paul[Paul.Garrahan@doj.state.or.us]; 'Segal, Joshua'[jsegal@oag.state.md.us]; James, Roberta[roberta.james@maryland.gov]; William Grantham[WGrantham@nmag.gov]; Gregory Schultz[gSchultz@riag.ri.gov]; Walker, Jesse[jeswalker@pa.gov]; Rottenberg, Daniel[DRottenberg@atg.state.il.us]
From: Julia Forgie
Sent: Fri 3/23/2018 6:42:25 PM
Subject: Notice of Intent regarding 2016 Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills (40 C.F.R. Part 60 Subpart Cf)
Notice of Intent re 2016 Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills.pdf

Dear Administrator Pruitt:

Attached please find a Notice of Intent to commence litigation regarding EPA's failure to enforce the 2016 Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills. The letter is also being sent via certified mail.

Sincerely,

Julia Forgie

Deputy Attorney General
California Office of the Attorney General

Natural Resources Law Section
300 S. Spring St., Suite 1702
Los Angeles, CA 90013
Tel: (213) 269-6623
E-mail: julia.forgie@doj.ca.gov

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

FEB 26 2018

Mr. Richard W. Corey
Executive Officer
California Air Resources Board
1001 I Street
P.O. Box 2815
Sacramento, California 95812

Dear Mr. Corey:

I am writing in response to your December 4, 2017 letter concerning the Landfill Emission Guidelines (EG) recently promulgated by the Environmental Protection Agency (EPA) and located at 40 CFR Part 60, Subpart Cf. We have received the California Air Resources Board's (CARB) May 30, 2017 state plan to implement the EG. As you may know, in May 2017 the EPA announced it is reconsidering several issues in the 2016 final rules for Municipal Solid Waste Landfills New Source Performance Standards (NSPS) and EG. On May 31, 2017, the EPA issued a 90-day stay on the 2016 EG. The 90-stay expired on August 29, 2017; thus, the 2016 rules are currently in effect. The EPA still intends to complete the reconsideration process granted by the Administrator.

Since the Agency is reconsidering various issues regarding the landfill regulations, at this time we do not plan to prioritize the review of submitted state plans nor are we working to issue a Federal Plan for states that failed to submit a state plan. Please also note that under 40 CFR § 60.27(c), the requirement for the EPA to develop a Federal Plan has not been triggered for the State of California since CARB has submitted a timely plan. Additionally, we are currently working to align our reconsideration of certain portions of the EG with the risk and technology review (RTR) for this source category. The EPA has a court order to complete the RTR by March 13, 2020 and the reconsideration will be finished on the same timeline.

Thank you for your letter and I hope this message allays your concerns about a Federal Plan. If you have any questions about this letter, please call me at (415) 972-3851 or Amy Zimpfer at (415) 947-4146 or have your staff contact Jeffrey Buss at (415) 947-4152 or Lisa Beckham at (415) 972-3811.

Sincerely,

Matthew J. Lakin
Acting Director, Air Division

cc: Shannon Martin Dilley, Counsel
CARB Legal Office

Printed on 100% Postconsumer Recycled Paper. Process Chlorine Free.

To: Douglass, Norma[Douglass.Norma@epa.gov]
From: Zimpfer, Amy
Sent: Thur 1/25/2018 12:13:09 AM
Subject: FW: CA submission
Submission of California State Plan.pdf
California State Plan for Municipal Waste.pdf

Hi Norma,

Can you please print the entire "Submission of California.." document and just the executive summary of the "California State Plan for…" document (Pages 1-6).

Thanks,

Amy

From: Buss, Jeffrey
Sent: Monday, January 22, 2018 10:05 AM
To: Zimpfer, Amy <Zimpfer.Amy@epa.gov>
Cc: Lo, Doris <Lo.Doris@epa.gov>; BECKHAM, LISA <BECKHAM.LISA@EPA.GOV>; Rios, Gerardo <Rios.Gerardo@epa.gov>; Riedel, Brian <riedel.brian@epa.gov>
Subject: FW: CA submission

Good morning Amy,

Here is the CARB submittal for the MSW landfills and emission guidelines.

Please let me know if you have questions or need other information.

Jeff

415-947-4152

From: Riedel, Brian
Sent: Wednesday, May 31, 2017 10:44 AM
To: BECKHAM, LISA <BECKHAM.LISA@EPA.GOV>; Buss, Jeffrey <Buss.Jeffrey@epa.gov>
Subject: CA submission

Curious that CA went ahead and submitted.

Thank you.

Floyd V. Vergara, Esq., P.E.

Chief, Industrial Strategies Division

California Air Resources Board

(916) 324-0356

Floyd.Vergara@arb.ca.gov

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Brian P. Riedel
Assistant Regional Counsel (ORC-2)
U.S. Environmental Protection Agency, Region 9
75 Hawthorne Street
San Francisco, CA 94105
(415) 972-3924 telephone, (415) 947-3570 fax
riedel.brian@epa.gov

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Mr. Richard A. Hyde, P.E.
Executive Director
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087

Dear Mr. Hyde:

Thank you for your letter dated April 21, 2017, requesting an extension of the May 30, 2017, deadline for the submittal of the revised state plan to implement the emission guidelines (EG) for existing municipal solid waste (MSW) landfills under 40 Code of Federal Regulations (CFR)Part 60, Subpart Cf.

The EPA has recently announced the convening of a proceeding for reconsideration of certain requirements of Subpart Cf and has stayed the effective date of Subpart Cf until August 29, 2017, pending the reconsideration. 82 Fed. Reg. 24878 (May 31, 2017). The stay will allow the EPA to reconsider certain aspects of the emission guidelines for existing MSW landfills and prepare a notice of proposed rulemaking that will provide an opportunity for public comment related to the requirements under reconsideration.

During the period of the aforementioned stay of Subpart Cf, we will continue to process your extension request. However, we suggest that you resubmit your extension request near the expiration of the stay period in order to take into account any changes that may affect the underlying basis for your extension request.

Should you have any questions, please contact me at (214) 665-2100, or your staff may contact Ms. Mary Stanton, Chief, Ozone and Infrastructure Section, at (214) 665-8377, or Kenneth Boyce at (214) 665-7259.

Sincerely yours,

Samuel Coleman, P.E.
Acting Regional Administrator

Enclosures

K. Boyce 6MM-AB	M. Stanton 6MM-AB	R. Bartley 6RC-M	S. Smith 6RC-M	G. Donaldson 6MM-A
W. Stenger 6MM	J. Payne 6RC	D. Gray 6XA		

To: Air Permit Exchange[permit@lists.epa.gov]
From: BECKHAM, LISA
Sent: Mon 2/26/2018 9:49:46 PM
Subject: RE:[permit] NSPS Subpart XXX

I suggest the recent brief we filed as the best piece of guidance – I've copy and pasted it below. Also as an FYI, we sent a letter to California today about their State plan for existing landfills. I pasted it below as well.

The brief basically says the stay had no effect.

*****Brief*****

Petitioners Natural Resources Defense Council, Clean Air Council, Clean Wisconsin, and Conservation Law Foundation (collectively, Petitioners), and Respondents E. Scott Pruitt and the United States Environmental Protection Agency (together, EPA) agree to dismiss this case pursuant to Federal Rule of Appellate Procedure 42(b). Petitioners and EPA inform the Court as follows:

This case involves a petition for review of the EPA final action published on May 31, 2017, and titled "Stay of Standards of Performance for Municipal Solid Waste Landfills and Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills," 82 Fed. Reg. 24,878 (May 31, 2017) (hereinafter "Stay Decision").

In EPA's response brief dated January 22, 2018, ECF No. 1714147, the Agency made the following representations:

1. "The Stay Decision only affects deadlines in the 2016 regulations that would have otherwise applied during the 90 days in which the stay was in effect," that is, from May 31, 2017, until August 29, 2017. EPA Br. at 2.
2. With regard to new landfills: "EPA is not aware of any new landfills affected by the Stay Decision" (that is, landfills with "deadlines [that] fell within the period of the stay") and "Petitioners have not pointed to any." EPA Br. at 37-42.
3. With regard to existing landfills: "the Stay Decision by its express terms began on May 31, not May 30, and therefore did not alter the May 30" deadline for states to submit implementation plans for existing landfills "and EPA did not purport to retroactively extend that date." EPA Br. at 35. Additionally, "the Stay Decision did not affect any subsequent deadlines for existing landfills." EPA Br. at 36.
4. With regard to EPA's obligations: "EPA had four months, until September 31, 2017, to approve or disapprove any state plans that were timely submitted by May 30, and six

> months, until November 30, 2017, to promulgate a federal plan for states that did not timely submit state plans." EPA Br. at 36. These deadlines "have come and gone, and the Stay Decision had no effect on them." *Id.* "EPA has neither approved nor disapproved the state plans that were timely submitted, nor promulgated any federal plans." EPA Br. at 37.

In light of these representations, Petitioners have elected to voluntarily dismiss this petition for review. Petitioners and EPA hereby agree to the voluntary dismissal of the above-captioned petition for review pursuant to Federal Rule of Appellate Procedure 42(b). Each party shall bear its own costs.

****Letter to California****

Dear Mr. Corey:

I am writing in response to your December 4, 2017 letter concerning the Landfill Emission Guidelines

(EG) recently promulgated by the Environmental Protection Agency (EPA) and located at 40 CFR Part

60, Subpart Cf. We have received the California Air Resources Board's (CARB) May 30, 2017 state plan

to implement the EG. As you may know, in May 2017 the EPA announced it is reconsidering several

issues in the 2016 final rules for Municipal Solid Waste Landfills New Source Performance Standards

(NSPS) and EG. On May 31, 2017, the EPA issued a 90-day stay on the 2016 EG. The 90-stay expired

on August 29, 2017; thus, the 2016 rules are currently in effect. The EPA still intends to complete the

reconsideration process granted by the Administrator.

Since the Agency is reconsidering various issues regarding the landfill regulations, at this time we do not

plan to prioritize the review of submitted state plans nor are we working to issue a Federal Plan for states

that failed to submit a state plan. Please also note that under 40 CER § 60.27(c), the requirement for the

EPA to develop a Federal Plan has not been triggered for the State of California since CARB has

submitted a timely plan. Additionally, we are currently working to align our reconsideration of certain

portions of the EG with the risk and technology review (RTR) for this source category. The EPA has a

court order to complete the RTR by March 13, 2020 and the reconsideration will be finished on the same

timeline.

Thank you for your letter and I hope this message allays your concerns about a Federal Plan. If you have

any questions about this letter, please call me at (415) 972-3851 or Amy Zimpfer at (415) 947-4146 or

have your staff contact Jeffrey Buss at (415) 947-4152 or Lisa Beckham at (415) 972-3811.

Sincerely,

Matthew J. Lakin

Acting Director, Air Division

From: Law, Donald [mailto:Law.Donald@epa.gov]
Sent: Monday, February 26, 2018 1:16 PM
To: Air Permit Exchange <permit@lists.epa.gov>
Subject: [permit] NSPS Subpart XXX

The Region has been receiving several inquiries on the NSPS subpart XXX stay and how to work through the applicability with the stay lifted. Mainly the concern is the clarification on which rules apply (WWW or XXX). Has there been any other guidance put out on these two rules?

You are currently subscribed to permit as: Beckham.Lisa@epa.gov .
To unsubscribe send a blank email to: leave-1694406-2127996.1c2be31c9b65bc637dc9005788795363@lists.epa.gov .

You are currently subscribed to permit as: Bartley.Richard@epa.gov .
To unsubscribe send a blank email to: leave-1694416-2127995.68a3812fff65cdc475e3bf55e8b013e0@lists.epa.gov .

To: Air Permit Exchange[permit@lists.epa.gov]
From: Law, Donald
Sent: Mon 2/26/2018 9:15:37 PM
Subject: [permit] NSPS Subpart XXX

The Region has been receiving several inquiries on the NSPS subpart XXX stay and how to work through the applicability with the stay lifted. Mainly the concern is the clarification on which rules apply (WWW or XXX). Has there been any other guidance put out on these two rules?

You are currently subscribed to permit as: Bartley.Richard@epa.gov .
To unsubscribe send a blank email to: leave-1694406-2127995.68a3812fff65cdc475e3bf55e8b013e0@lists.epa.gov .

To: Air Permit Exchange[permit@lists.epa.gov]
From: Castro, Grecia
Sent: Thur 11/2/2017 8:26:16 PM
Subject: RE:[permit] Title V Permit Application Deadline Extension

Umesh – The source is subject to the deadline of § 70.5(a)(1)(i) or § 71.5(a)(1)(i) no later than 90 days after commencing construction. Accordingly, the permitting authority may give the facility up to 12 months from Oct 2017.

For purposes of submitting a timely

application for an operating permit

under part 70 or 71, the owner or

operator of an MSW landfill subject to

this subpart with a design capacity

greater than or equal to 2.5 million

megagrams and 2.5 million cubic

meters, and not otherwise subject to

either part 70 or 71, becomes subject to

the requirements of § 70.5(a)(1)(i) or

§ 71.5(a)(1)(i) of this chapter, …

From: Dholakia, Umesh [mailto:Dholakia.Umesh@epa.gov]
Sent: Thursday, November 02, 2017 2:44 PM
To: Air Permit Exchange <permit@lists.epa.gov>
Subject: RE:[permit] Title V Permit Application Deadline Extension

The applicant began modification after the rule was stayed but before the stay expired- so was under the impression that it will have 1 year to apply.

From: Land, Eva [mailto:Land.Eva@epa.gov]
Sent: Thursday, November 02, 2017 2:38 PM
To: Air Permit Exchange <permit@lists.epa.gov>
Subject: RE:[permit] Title V Permit Application Deadline Extension

Hey-

I think as of now the NSPS is back in effect. The applicant was holding off to see if the rule would go back in place or not and now is short-changed on time?

From: Dholakia, Umesh [mailto:Dholakia.Umesh@epa.gov]
Sent: Thursday, November 2, 2017 2:16 PM
To: Air Permit Exchange <permit@lists.epa.gov>
Subject: [permit] Title V Permit Application Deadline Extension

A Municipal Solid Waste Authority in NJ is requesting an extension for a title V permit application deadline- NSPS Subpart XXX- of November 27, 2017. The authority commenced construction of a modification in July, 2017. This rule was stayed by the Administrator on May 5, 2017. The stay expired on August 29, 2017. The rule requires that the application be submitted within 90 days of commencing construction and this operator cannot meet the deadline for applying for a title V permit.

We are ok with the reasons- however, we would like to know if this is doable- legally and policy point of view.

Please advise ASAP. Thanks.

.

You are currently subscribed to permit as: Land.Eva@epa.gov .
To unsubscribe send a blank email to: leave-1679890-2128023.655d35856e9636a4e07a4df7e7279548@lists.epa.gov .

You are currently subscribed to permit as: dholakia.umesh@epa.gov .
To unsubscribe send a blank email to: leave-1679892-2128102.32937fffb55a4278bd06243ebc286990@lists.epa.gov .

You are currently subscribed to permit as: castro.grecia@epa.gov .
To unsubscribe send a blank email to: leave-1679893-2128086.15e8295aabf9e0b093288c6e56f4953a@lists.epa.gov .

You are currently subscribed to permit as: Bartley.Richard@epa.gov .
To unsubscribe send a blank email to: leave-1679928-2127995.68a3812fff65cdc475e3bf55e8b013e0@lists.epa.gov .

To: Air Permit Exchange[permit@lists.epa.gov]
From: Dholakia, Umesh
Sent: Thur 11/2/2017 6:43:32 PM
Subject: RE:[permit] Title V Permit Application Deadline Extension

The applicant began modification after the rule was stayed but before the stay expired- so was under the impression that it will have 1 year to apply.

From: Land, Eva [mailto:Land.Eva@epa.gov]
Sent: Thursday, November 02, 2017 2:38 PM
To: Air Permit Exchange <permit@lists.epa.gov>
Subject: RE:[permit] Title V Permit Application Deadline Extension

Hey-

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From: Dholakia, Umesh [mailto:Dholakia.Umesh@epa.gov]
Sent: Thursday, November 2, 2017 2:16 PM
To: Air Permit Exchange <permit@lists.epa.gov>
Subject: [permit] Title V Permit Application Deadline Extension

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Please advise ASAP. Thanks.

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To unsubscribe send a blank email to: leave-1679890-2128023.655d35856e9636a4e07a4df7e7279548@lists.epa.gov .

You are currently subscribed to permit as: dholakia.umesh@epa.gov .
To unsubscribe send a blank email to: leave-1679892-2128102.32937fffb55a4278bd06243ebc286990@lists.epa.gov .

You are currently subscribed to permit as: Bartley.Richard@epa.gov .
To unsubscribe send a blank email to: leave-1679893-2127995.68a3812fff65cdc475e3bf55e8b013e0@lists.epa.gov .

To: Air Permit Exchange[permit@lists.epa.gov]
From: Land, Eva
Sent: Thur 11/2/2017 6:37:37 PM
Subject: RE:[permit] Title V Permit Application Deadline Extension

Hey-

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Sent: Thursday, November 2, 2017 2:16 PM
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You are currently subscribed to permit as: Land.Eva@epa.gov .
To unsubscribe send a blank email to: leave-1679890-

2128023.655d35856e9636a4e07a4df7e7279548@lists.epa.gov .

You are currently subscribed to permit as: Bartley.Richard@epa.gov .
To unsubscribe send a blank email to: leave-1679892-2127995.68a3812fff65cdc475e3bf55e8b013e0@lists.epa.gov .

To: Air Permit Exchange[permit@lists.epa.gov]
From: Dholakia, Umesh
Sent: Thur 11/2/2017 6:15:41 PM
Subject: [permit] Title V Permit Application Deadline Extension

A Municipal Solid Waste Authority in NJ is requesting an extension for a title V permit application deadline- NSPS Subpart XXX- of November 27, 2017. The authority commenced construction of a modification in July, 2017. This rule was stayed by the Administrator on May 5, 2017. The stay expired on August 29, 2017. The rule requires that the application be submitted within 90 days of commencing construction and this operator cannot meet the deadline for applying for a title V permit.

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Please advise ASAP. Thanks.

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You are currently subscribed to permit as: Bartley.Richard@epa.gov .
To unsubscribe send a blank email to: leave-1679890-2127995.68a3812fff65cdc475e3bf55e8b013e0@lists.epa.gov .

From: Paige, Carrie
Location: R6-ConfRm-GulfofMexico-11O02/R6---11th-Floor
Importance: Normal
Subject: Monthly call w/Oklahoma
Start Date/Time: Thur 10/19/2017 2:00:00 PM
End Date/Time: Thur 10/19/2017 3:00:00 PM
Oct agenda.docx

Agenda attached – please let me know if additions or other edits.

Thank you,

Carrie Paige

Environmental Scientist

US EPA Region 6

State Implementation Section (6MM-AB)

1445 Ross Avenue, Suite 1200

Dallas, TX 75202

(214) 665-6521

POSITIONS OR VIEWS EXPRESSED DO NOT REPRESENT OFFICIAL EPA POLICY

OK SIP Planning - Monthly Call Agenda Thursday, October 19, 2017 - 9:00 AM
Conference number: 866-299-3188 --- Access code: 214-665-6521

Welcome and Introductions

NSPS/NESHAP Delegation Process - Rick Bartley

SIP Updates
Regional Haze – 5-yr progress report w/EPA
110(a)(2) Infrastructure submittals: October 1, 2018 for 2015 ozone standard
https://www.epa.gov/airmarkets/interstate-air-pollution-transport
SIP Processing Priorities:

Designation/Implementation of NAAQS: https://www.epa.gov/naaqs
SO2 120-day letters sent on 8/22/2017, regarding round 3 to be designated by 12/31/2017
https://www.epa.gov/sulfur-dioxide-designations/intended-sulfur-dioxide-area-designations-august-2017
Ozone designations: https://www.epa.gov/ozone-designations
Ozone Implementation rule: https://www.regulations.gov/docket?D=EPA-HQ-OAR-2016-0202
www.epa.gov/ozone-pollution/implementation-2015-national-ambient-air-quality-standards-naaqs-ozone-state

NAAQS – periodic reviews: http://yosemite.epa.gov/sab/sabproduct.nsf/WebCASAC/recentadditions
Carbon Monoxide – no schedule yet: www.epa.gov/ttn/naaqs/standards/co/s_co_index.html
Ozone – no schedule (obvi – reconsider?): https://www.epa.gov/naaqs/ozone-o3-air-quality-standards
Lead – no schedule: www.epa.gov/lead-air-pollution/national-ambient-air-quality-standards-naaqs-lead-pb
Primary NO2 – Proposed rule signed Friday (7/14/17) to retain current standards w/o revision
Comments by 9/25/2017; finalize by April 6, 2018 (consent decree)
www.epa.gov/naaqs/nitrogen-dioxide-no2-primary-air-quality-standards
Primary SO2 – 2nd draft ISA released December 2016; REA and PA planning documents released at end of August
Comment period extended to 11/17/17
FR announcement: https://www.gpo.gov/fdsys/pkg/FR-2017-09-19/pdf/2017-19823.pdf (30-day comment period)
CD dates: final ISA by 12/14/17; propose decision by 5/28/18; final by 1/28/19
www.epa.gov/naaqs/sulfur-dioxide-so2-primary-air-quality-standards
Secondary NO2/SO2 –final IRP not yet released, 1st draft ISA released 3/30/17, includes 2ndary PM
www.epa.gov/naaqs/nitrogen-dioxide-no2-and-sulfur-dioxide-so2-secondary-air-quality-standards
Particulate Matter –final IRP released December 2016; 1st draft ISA and REA planning docs fall 2017
www.epa.gov/naaqs/particulate-matter-pm-air-quality-standards

Misc, Questions, and Follow-up
Current Rulemaking Activities – OK
Ozone Advance:

Electronic submittal of SIP revisions – SharePoint, eSIP portal/CDX/SPECs
Monitoring – smoke/PM Flint Hills
SSM SIP call
MSW Landfill 111(d) Plan
Oil & Natural Gas Sector stay
CISWI Plan

Next planning call: November 16 is the 3rd Thursday (9 AM)

From: Paige, Carrie
Location: R6-ConfRm-GulfofMexico-11O02/R6---11th-Floor
Importance: Normal
Subject: SIP Planning w/Oklahoma - Agenda
Start Date/Time: Thur 9/21/2017 2:00:00 PM
End Date/Time: Thur 9/21/2017 3:00:00 PM
Sept agenda.docx

Please contact me with any questions/comments regarding the agenda.

Carrie Paige

Environmental Scientist

US EPA Region 6

State Implementation Section (6MM-AB)

1445 Ross Avenue, Suite 1200

Dallas, TX 75202

(214) 665-6521

POSITIONS OR VIEWS EXPRESSED DO NOT REPRESENT OFFICIAL EPA POLICY

OK SIP Planning - Monthly Call Agenda Thursday, September 21, 2017 - 9:00 AM
Conference number: 866-299-3188 --- Access code: 214-665-6521

Welcome and Introductions

Update: NSPS/NESHAP Delegation Process

SIP Updates
Regional Haze – 5-yr progress report
110(a)(2) Infrastructure submittals: October 1, 2018 for 2015 ozone standard
https://www.epa.gov/airmarkets/interstate-air-pollution-transport
SIP Processing Priorities:

Designation/Implementation of NAAQS: https://www.epa.gov/naaqs
SO2 120-day letters sent on 8/22/2017, regarding round 3 to be designated by 12/31/2017
https://www.epa.gov/sulfur-dioxide-designations/intended-sulfur-dioxide-area-designations-august-2017
PM
https://www.epa.gov/pm-pollution/implementation-national-ambient-air-quality-standards-naaqs-fine-particulate-matter
Ozone designations: https://www.epa.gov/ozone-designations
https://www.congress.gov/bill/115th-congress/house-bill/806/text
Ozone Implementation rule: https://www.regulations.gov/docket?D=EPA-HQ-OAR-2016-0202
www.epa.gov/ozone-pollution/implementation-2015-national-ambient-air-quality-standards-naaqs-ozone-state

NAAQS – periodic reviews: http://yosemite.epa.gov/sab/sabproduct.nsf/WebCASAC/recentadditions
Carbon Monoxide – no schedule yet: www.epa.gov/ttn/naaqs/standards/co/s_co_index.html
Ozone – no schedule (obvi – reconsider?): https://www.epa.gov/naaqs/ozone-o3-air-quality-standards
Lead – no schedule: www.epa.gov/lead-air-pollution/national-ambient-air-quality-standards-naaqs-lead-pb
Primary NO2 – Proposed rule signed Friday (7/14/17) to retain current standards w/o revision
Comments by 9/25/2017; finalize by April 6, 2018 (consent decree)
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FR announcement: https://www.gpo.gov/fdsys/pkg/FR-2017-09-19/pdf/2017-19823.pdf (30-day comment period)
CD dates: final ISA by 12/14/17; propose decision by 5/28/18; final by 1/28/19
www.epa.gov/naaqs/sulfur-dioxide-so2-primary-air-quality-standards
Secondary NO2/SO2 –final IRP not yet released, 1st draft ISA released 3/30/17, includes 2ndary PM
www.epa.gov/naaqs/nitrogen-dioxide-no2-and-sulfur-dioxide-so2-secondary-air-quality-standards
Particulate Matter –final IRP released December 2016; 1st draft ISA and REA planning docs fall 2017
www.epa.gov/naaqs/particulate-matter-pm-air-quality-standards

Misc, Questions, and Follow-up
Current Rulemaking Activities – OK
Ozone Advance

Electronic submittal of SIP revisions – SharePoint, eSIP portal/CDX/SPECs
Monitoring – smoke/PM Flint Hills (no changes, burn season is over)
SSM SIP call
MSW Landfill 111(d) Plan
Oil & Natural Gas Sector stay –

Next planning call: October 19 is the 3rd Thursday (9 AM)

To: Merta, Ed L.[emerta@cabq.gov]
Cc: Stanton, Marya[Stanton.Marya@epa.gov]; Bartley, Richard[Bartley.Richard@epa.gov]
From: Boyce, Kenneth
Sent: Thur 6/15/2017 10:20:16 PM
Subject: RE: Landfills submittal

Hello Ed,

Hope you are having a good day. Please except my humble apology for not getting back to you sooner. Yes, Ed you are correct on both 1) and 2) comments below. There is a possibility that this "Stay" of the Rule could lead to a new proposal rulemaking. Which new changes could occur that might impact the recently received AEHD Landfill Plan. We are preparing an Acknowledgement Memo and will forward it to AEHD upon its signature. I have taken a "quick look" review and noticed that indeed you have IBR'd the subpart Cf, EG's. Please call me if you have any further questions.

Thanks,

Ken Boyce, Environmental Protection Specialist

PH: (214) 665-7259
FAX: (214) 665-7263

From: Merta, Ed L. [mailto:emerta@cabq.gov]
Sent: Wednesday, May 31, 2017 1:56 PM
To: Boyce, Kenneth <boyce.kenneth@epa.gov>
Subject: RE: Landfills submittal

Thank you kind sir!

Two additional questions, regarding the 90 day stay, if I may. Apologies if this rehashes material from our phone call last week, just want to make sure I know what I'm doing!

1) My understanding is that prior to the stay, the deadline for EPA to approve our MSWL state plan (under 40 CFR 60.27) was four months after May 30, which would be around September 30. Should I assume that this date has now been pushed back 90 days, to around December 30? The reason I ask is that our recently adopted regulation on existing MSWLs calls for regulated facilities to begin complying with Subpart Cf once EPA approves our state plan, and so I'd like to be sure I understand the timeline for EPA approval.

2) Also, my understanding is that during the 90 day stay, EPA will issue a new proposed rule accepting comments on the aspects of Subparts Cf and XXX described in today's Federal Register notice. I assume that when the 90 day stay ends on August 29, Subparts Cf and XXX will still be in effect in their current form, and thus affected facilities will have to comply with them pending EPA's promulgation of a new final rule, which may not occur for a significant amount of time after August 29. Thus, it appears that once the 90 day stay expires, there will be a period, of unknown duration, in which existing and new MSWLs will have to comply with Subparts Cf (once EPA approves a state plan) or XXX, as applicable, rather than Subparts Cc or WWW. Is my understanding correct?

Any information appreciated, just want to make sure I can advise our folks here of what to expect in the coming months, in case they have questions from regulated sources.

Thanks very much!

-Ed

Ed Merta

Air Quality Regulation Development Coordinator

Air Quality Program

Environmental Health Department

City of Albuquerque

PO Box 1293

Albuquerque NM 87103

Phone: (505) 768-2660

emerta@cabq.gov

From: Boyce, Kenneth [mailto:boyce.kenneth@epa.gov]
Sent: Tuesday, May 30, 2017 12:53 PM
To: Merta, Ed L.
Subject: RE: Landfills submittal

Hi Ed,

Sorry about the confusion. Mr. Guy Donaldson has replaced Mark since his retirement. Have a good day. Stay safe.

Ken Boyce, Environmental Protection Specialist

PH: (214) 665-7259
FAX: (214) 665-7263

From: Merta, Ed L. [mailto:emerta@cabq.gov]
Sent: Tuesday, May 30, 2017 12:49 PM
To: Boyce, Kenneth <boyce.kenneth@epa.gov>
Subject: Landfills submittal

Hi Ken,

Quick question for you – when I sent you and others a heads up email last week about our submittal, I cc'd Mark Hansen but the email bounced back to him. For future reference, is someone else serving in his position now…?

Hope you had a great holiday, take care,

Ed Merta

Air Quality Regulation Development Coordinator

Air Quality Program

Environmental Health Department

City of Albuquerque

PO Box 1293

Albuquerque NM 87103

Phone: (505) 768-2660

emerta@cabq.gov

From: Paige, Carrie
Location: R6-ConfRm-GulfofMexico-11O02/R6---11th-Floor
Importance: Normal
Subject: Monthly SIP Planning w/OK
Start Date/Time: Thur 7/20/2017 2:00:00 PM
End Date/Time: Thur 7/20/2017 3:00:00 PM
Jul agenda.docx

Agenda attached - feel free to suggest edits to the agenda!

Thank you,

Carrie Paige

Environmental Scientist

US EPA Region 6

State Implementation Section (6MM-AB)

1445 Ross Avenue, Suite 1200

Dallas, TX 75202

(214) 665-6521

POSITIONS OR VIEWS EXPRESSED DO NOT REPRESENT OFFICIAL EPA POLICY

OK SIP Planning - Monthly Call Agenda Thursday, July 20, 2017 - 9:00 AM
Conference number: 866-299-3188 --- Access code: (b) (6)

Welcome and Introductions

SIP Updates
Regional Haze – 5-yr progress report
110(a)(2) Infrastructure submittals: October 1, 2018 for 2015 ozone standard
https://www.epa.gov/airmarkets/interstate-air-pollution-transport
SIP Processing Priorities:

Designation/Implementation of NAAQS: https://www.epa.gov/naaqs
SO2 modeling report due July 1, 2017 - received
www.epa.gov/sulfur-dioxide-designations/so2-designations-state-designations-round-2
PM no updates
https://www.epa.gov/pm-pollution/implementation-national-ambient-air-quality-standards-naaqs-fine-particulate-matter
Ozone designations: https://www.epa.gov/ozone-designations extending designations for one year
Ozone Implementation rule: https://www.regulations.gov/docket?D=EPA-HQ-OAR-2016-0202
www.epa.gov/ozone-pollution/implementation-2015-national-ambient-air-quality-standards-naaqs-ozone-state

NAAQS – periodic reviews: http://yosemite.epa.gov/sab/sabproduct.nsf/WebCASAC/recentadditions
Carbon Monoxide – no schedule yet: www.epa.gov/ttn/naaqs/standards/co/s_co_index.html
Ozone – no schedule: https://www.epa.gov/naaqs/ozone-o3-air-quality-standards
Lead – no schedule: www.epa.gov/lead-air-pollution/national-ambient-air-quality-standards-naaqs-lead-pb
Primary NO2 – Proposed rule signed Friday (7/14/17) to retain current standards w/o revision
CD date negotiated re final decision is April 6, 2018
www.epa.gov/naaqs/nitrogen-dioxide-no2-primary-air-quality-standards
Primary SO2 – 2nd draft ISA released December 2016; REA planning document February 2017
CD dates: final ISA by 12/14/17; propose decision by 5/28/18; final by 1/28/19
www.epa.gov/naaqs/sulfur-dioxide-so2-primary-air-quality-standards
Secondary NO2/SO2 – anticipate final IRP early 2017, 1st draft ISA released 3/30/17, includes 2ndary PM
www.epa.gov/naaqs/nitrogen-dioxide-no2-and-sulfur-dioxide-so2-secondary-air-quality-standards
Particulate Matter –final IRP released December 2016; 1st draft ISA and REA planning docs fall 2017
www.epa.gov/naaqs/particulate-matter-pm-air-quality-standards

Misc, Questions, and Follow-up
Current Rulemaking Activities – OK
Ozone Advance:

Electronic submittal of SIP revisions – SharePoint, eSIP portal/CDX/SPECs
HQ still considering question regarding submittal/attachment of large files
NSPS Delegations Process:
Monitoring – smoke/PM Flint Hills (thank you for the fire presentation!)
SSM SIP call
MSW Landfill 111(d) Plan
Oil & Natural Gas Sector stay
Risk Management Program Amendments

Next planning call: August 17 is the 3rd Thursday (9 AM)

To: Paige, Carrie[Paige.Carrie@epa.gov]; Bartley, Richard[Bartley.Richard@epa.gov]
Cc: Stanton, Marya[Stanton.Marya@epa.gov]
From: Boyce, Kenneth
Sent: Tue 5/23/2017 8:52:46 PM
Subject: RE: Landfill rule stay
signed_-_letter_-_municipal_solid_waste_landfills.pdf

Hello Carrie,

In my humble opinion, since the Administrator has issued an 90 day stay on of the revised rule, I think the issue of the May 30, 2017 state plan due date is somewhat made mute at this time and we should get HQ direction regarding the extension for state plans due date(s). I think we should give the States a year extension (or reasonable time) due to the request for "reconsideration" of the rule by EPA.

Ken Boyce, Environmental Protection Specialist

PH: (214) 665-7259
FAX: (214) 665-7263

From: Paige, Carrie
Sent: Tuesday, May 23, 2017 3:28 PM
To: Boyce, Kenneth <boyce.kenneth@epa.gov>; Bartley, Richard <Bartley.Richard@epa.gov>
Subject: FW: Landfill rule stay

Ken and Rick,

Please see the email below and advise. May I have your response by COB today, if possible?

Thank you,

Carrie Paige

Environmental Scientist

US EPA Region 6

State Implementation Section (6MM-AB)

1445 Ross Avenue, Suite 1200

Dallas, TX 75202

(214) 665-6521

POSITIONS OR VIEWS EXPRESSED DO NOT REPRESENT OFFICIAL EPA POLICY

From: Melanie Foster [mailto:melanie.foster@deq.ok.gov]
Sent: Tuesday, May 23, 2017 3:20 PM
To: Paige, Carrie <Paige.Carrie@epa.gov>
Subject: Landfill rule stay

Carrie:

Does it make sense for us to request an extension for our Landfill 111(d) plan now that the emission guidelines are officially being stayed?

Thanks,

Melanie Foster

Rules & Planning Section, Air Quality Division

Phone: 405-702-4218 / Fax: 405-702-4101

Oklahoma Department of Environmental Quality

707 N. Robinson, P.O. Box 1677

Oklahoma City, OK 73101-1677

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

May 5, 2017

THE ADMINISTRATOR

Mr. Carroll W. McGuffey III
Mr. M. Buck Dixon
Counsel for Republic Services
Troutman Sanders LLP
600 Peachtree Street NE, Suite 5200
Atlanta, Georgia 30308

Mr. Barry Shanoff
Counsel for Solid Waste Association of North America
1100 Wayne Avenue, Suite 650
Silver Spring, Maryland 20910

Mr. Kevin J. Kraushaar
Counsel for National Waste & Recycling Association
4301 Connecticut Avenue, NW, #300
Washington, D.C. 20008

Ms. Carol F. McCabe
Mr. Michael Dillon
Counsel for Waste Management Inc. and
Waste Management Disposal Services of Pennsylvania
Manko, Gold, Katcher & Fox
401 City Avenue, Suite 901
Bala Cynwyd, Pennsylvania 19004

RE: Convening a Proceeding for Reconsideration of final rules entitled "Standards of Performance for Municipal Solid Waste Landfills," 81 Fed. Reg. 59332 and "Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills," 81 Fed. Reg. 59276, both published August 29, 2016.

Dear Mr. McGuffey, Mr. Dixon, Mr. Shanoff, Mr. Kraushaar, Ms. McCabe and Mr. Dillon:

This letter concerns a petition from National Waste & Recycling Association, Solid Waste Association of North America, Republic Services, Inc., Waste Management, Inc., and Waste Management Disposal Services of Pennsylvania, Inc., dated October 27, 2016, to the U.S. Environmental Protection Agency requesting reconsideration, and in some circumstances an administrative stay, of provisions included in the EPA's final rules entitled "Standards of Performance for Municipal Solid Waste Landfills," 81 Fed. Reg. 59332 (August 29, 2016) (i.e. the NSPS), and "Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills,"

ED_001764B_00000019

81 Fed. Reg. 59276 (August 29, 2016) (i.e. the emission guidelines), pursuant to section 307(d)(7)(B) of the Clean Air Act.

We find, under CAA section 307(d)(7)(B), that the petition has raised several objections to the provisions in both subpart XXX and subpart Cf that arose after the comment period or were impracticable to raise during the comment period and that are of central relevance to the outcome of the rule. Therefore, by this letter the EPA is convening a proceeding for reconsideration of the following topics: 1) tier 4 surface emission monitoring; 2) annual liquids reporting; 3) corrective action timeline procedures; 4) overlapping applicability with other rules; 5) the definition of cover penetration and 6) design plan approval. As part of the reconsideration process, the EPA expects to prepare a notice of proposed rulemaking that will provide an opportunity for notice and comment on the issues raised in the petition that meet the standard of CAA section 307(d)(7)(B), as well as any other matter we believe will benefit from additional comment.

As a result of this reconsideration, the EPA intends to exercise its authority under CAA section 307(d)(7)(B) to issue a 90-day stay of the effectiveness of both the NSPS (subpart XXX) and the emission guidelines (subpart Cf). The EPA believes it is appropriate to stay the effectiveness of both rules in their entirety because the topics listed above are integral to both rules. Sources need not comply with these requirements while the stay is in effect.

This letter does not address other requests for reconsideration raised in this and other petitions. Nor does it address the merits of, or suggest a concession of error on, any issue raised in the petition.

If you have any questions on this action, please contact Mr. Peter Tsirigotis in the Office of Air Quality Planning and Standards at (888) 627-7764 or airaction@epa.gov.

Respectfully yours,

E. Scott Pruitt

From: Stanton, Marya
Location: 7th Flr., Little Rock Conf. Rm.
Importance: Normal
Subject: FW: R6-17-000-8205 Hyde - TCEQ request extension for MSWLs
Start Date/Time: Thur 6/8/2017 7:15:00 PM
End Date/Time: Thur 6/8/2017 7:45:00 PM
R6-17-000-8205 Hyde - TCEQ request extension for MSWLs.pdf
RA Briefing Sheet-MSWLs.docx
TCEQ's Extension Request - Subpart Cf - Draft Response - June 1 2017.docx

Rick,

I didn't see your name on the invitation list, but if you are available, please come. It will now start at 2:30.

-----Original Appointment-----
From: McGee, Tomika
Sent: Monday, June 05, 2017 11:13 AM
To: McGee, Tomika; Donaldson, Guy; Price, Lisa; Stanton, Marya; Coleman, Sam; Stenger, Wren; Boyce, Kenneth
Subject: Fw: R6-17-000-8205 Hyde - TCEQ request extension for MSWLs
When: Thursday, June 08, 2017 2:15 PM-2:45 PM (UTC-06:00) Central Time (US & Canada).
Where: 7th Flr., Little Rock Conf. Rm.

I don't know what the response means by we will continue to consider your extension request during the stay???

From: McGee, Tomika
Sent: Wednesday, June 7, 2017 3:18 PM
To: Coleman, Sam; Stenger, Wren; Price, Lisa; Donaldson, Guy; Boyce, Kenneth; Stanton, Marya
Subject: R6-17-000-8205 Hyde - TCEQ request extension for MSWLs
When: Thursday, June 8, 2017 2:15 PM-2:45 PM.
Where: 7th Flr., Little Rock Conf. Rm.

Bryan W. Shaw, Ph.D., P.E., *Chairman*
Toby Baker, *Commissioner*
Jon Niermann, *Commissioner*
Richard A. Hyde, P.E., *Executive Director*

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

April 21, 2017

9489 0090 0027 6009 3650 54

Mr. Sam Coleman
Acting Regional Administrator
U.S. Environmental Protection Agency Region 6
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202

Subject: Request for extension of deadline for submittal of Section 111(d) state plan for existing municipal solid waste landfills under 40 Code of Federal Regulations (CFR) Part 60, Subpart Cf

Dear Mr. Coleman:

The Texas Commission on Environmental Quality (TCEQ) is requesting an extension of the deadline for submittal of a revised Section 111(d) state plan to implement the 40 CFR Part 60 Subpart Cf Emission Guidelines for Municipal Solid Waste Landfills (MSWL), as provided under 40 CFR § 60.27(a). The Environmental Protection Agency (EPA) promulgated the Subpart Cf Emission Guidelines on August 29, 2016 (81 *FR* 59276) and established a deadline of May 30, 2017, for states with affected landfills to submit a state plan or state plan revision. TCEQ currently has an EPA-approved state plan for existing MSWL (64 *FR* 32427, June 17, 1999), but revisions to the plan will be necessary to account for the changes introduced by the new emission guidelines.

TCEQ is requesting this extension because of the time required to complete the research, rulemaking, and associated non-rule actions needed to implement the new emission guidelines. It will be necessary to revise the 30 Texas Administrative Code (TAC) Chapter 113, Subchapter D regulations implementing the current Texas state plan for MSWL and to revise Texas air permitting authorizations for MSWL facilities which currently do not address the requirements of the new Subpart Cf Emission Guidelines and Subpart XXX New Source Performance Standards for MSWL. These authorizations include the Standard Air Quality Permit for MSWL Facilities under 30 TAC Chapter 330 Subchapter U and General Operating Permit No. 517 for MSWL issued under 30 TAC Chapter 122.

Taking into account the statutory and administrative requirements which are required for rulemaking in Texas, approximately one year is needed to initiate and complete a typical rulemaking project. However, the scope of the work necessary for TCEQ to implement the new emission guidelines and revise the state plan is substantially broader than a typical rulemaking. In addition, TCEQ is facing a state legislative session and various other federal actions which are expected to place a high demand on agency resources available for rulemaking activities. For these reasons, TCEQ is requesting that the EPA extend the deadline for Texas to submit the revised state plan required by 40 CFR Part 60 Subpart Cf, to a date no earlier than November 30, 2018.

The TCEQ staff member assigned to manage the development of the revised MSWL rules and state plan is Mr. Michael Wilhoit, TCEQ Air Permits Division, Operational Support Section. If you have any questions or need more information pertaining to this request, please feel free to

contact Mr. Wilhoit at (512) 239-1222 or by e-mail at michael.wilhoit@tceq.texas.gov. An expeditious reply to this request would be appreciated.

Sincerely,

Richard A. Hyde, P.E., Executive Director
Texas Commission on Environmental Quality

cc: Mr. Kenneth Boyce, EPA Region 6

RA Control Briefing Sheet

Action Title: Interim response to TCEQ's request for extension of time to submit revisions to state plan to control emissions from existing municipal solid waste landfills

Purpose: This letter provides an interim response to TCEQ's April 21, 2017, request for an extension until November 30, 2018, to submit revisions to its Clean Air Act section 111(d) plan to control emissions of landfill gases. Since the EPA has stayed the effective date of the underlying rule requiring submittal of the 111(d) plan revisions, the response also recommends that Texas update its request upon expiration of the EPA's 90-day stay.

Background: On August 29, 2016, the EPA updated and revised its New Source Performance Standards (NSPS) regulations and emission guidelines (EGs) to further reduce emissions from municipal solid waste landfills. The revisions addressed changes in the landfill industry over time, including changes to size and number of existing landfills, industry practices and gas control methods. Under the new EGs – 40 CFR Part 60, Subpart Cf – municipal solid waste landfill that commenced construction before July 17, 2014, are required to meet new emission requirements established in state plans submitted to the EPA no later than May 30, 2017. A state may request an extension of time for submittal of its plan, but affected sources are subject to the federal plan (not yet promulgated) until the state's plan is approved by EPA. A number of interested parties filed petitions for reconsideration of the new EGs, and on May 5, 2017, the EPA announced the convening of a proceeding for reconsideration of certain requirements of Subpart Cf. Topics to be addressed in the reconsideration include: (1) tier 4 surface emission monitoring; (2) annual liquids reporting; (3) corrective action timeline procedures; (4) overlapping applicability with other rules; (5) the definition of cover penetration; and (6) design plan approval. In addition, the EPA has stayed the effective date of Subpart Cf until August 29, 2017, pending the reconsideration.

Key Issues/Internal Review: The EPA will likely propose additional notices in the Federal Register that may affect the EGs in Subpart Cf and/or the state plan deadline submittal date. Consequently, the underlying assumptions and basis for TCEQ's extension request may be affected. Under current EPA delegations, regional offices have the authority to grant state extension requests for submittal of CAA section 111(d) plans.

The State's affected facilities remain subject to the EPA-approved state plan implementing the previous EGs promulgated at 40 CFR Part 60, Subpart Cc and the requirements of the federal plan implementing the requirements of Subpart Cf after the stay and upon promulgation of the federal plan.

Stakeholder Involvement:
We have discussed the proposed response with TCEQ staff.

Legal Deadlines: Four months after expiration of the stay (i.e., December 2017)

Region 6 Contact: Supervisor: Mary Stanton, 5-8377, Staff: Ken Boyce, 5-7259
Legal: Rick Bartley, 5-8046

Mr. Richard A. Hyde, P.E.
Executive Director
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087

Dear Mr. Hyde:

Thank you for your letter dated April 21, 2017, requesting an extension of the May 30, 2017, deadline for the submittal of the revised state plan to implement the emission guidelines (EG) for existing municipal solid waste (MSW) landfills under 40 Code of Federal Regulations (CFR)Part 60, Subpart Cf.

The EPA has recently announced the convening of a proceeding for reconsideration of certain requirements of Subpart Cf and has stayed the effective date of Subpart Cf until August 29, 2017, pending the reconsideration. 82 Fed. Reg. 24878 (May 31, 2017). The stay will allow the EPA to reconsider certain aspects of the emission guidelines for existing MSW landfills and prepare a notice of proposed rulemaking that will provide an opportunity for public comment related to the requirements under reconsideration.

During the period of the aforementioned stay of Subpart Cf, we will continue to process your extension request. However, we suggest that you resubmit your extension request near the expiration of the stay period in order to take into account any changes that may affect the underlying basis for your extension request.

Should you have any questions, please contact me at (214) 665-2100, or your staff may contact Ms. Mary Stanton, Chief, Ozone and Infrastructure Section, at (214) 665-8377, or Kenneth Boyce at (214) 665-7259.

Sincerely yours,

Samuel Coleman, P.E.
Acting Regional Administrator

Enclosures

K. Boyce 6MM-AB	M. Stanton 6MM-AB	R. Bartley 6RC-M	S. Smith 6RC-M	G. Donaldson 6MM-A
W. Stenger 6MM	J. Payne 6RC	D. Gray 6XA		

To: Bartley, Richard[Bartley.Richard@epa.gov]
Cc: Smith, Suzanne[Smith.Suzanne@epa.gov]
From: Stanton, Marya
Sent: Thur 6/8/2017 2:27:41 PM
Subject: RE: Concurrence Email: CAA Section 111(d) Plan for MSW Landfills - TCEQ's Request for Extension of Plan Submittal Date

Hi Rick,

Got it. I made the change.

Mary A. Stanton, Chief

Ozone and Infrastructure Section (6MM-MB)

EPA Region 6

214-665-8377

From: Bartley, Richard
Sent: Thursday, June 08, 2017 9:15 AM
To: Stanton, Marya <Stanton.Marya@epa.gov>
Cc: Smith, Suzanne <Smith.Suzanne@epa.gov>
Subject: Fw: Concurrence Email: CAA Section 111(d) Plan for MSW Landfills - TCEQ's Request for Extension of Plan Submittal Date

Hi Mary -

See email below. Could we replace "will provide" with "would provide" in the first sentence of the second paragraph of the letter? I think that would address Jim's concern.

Sorry for all the last minute changes.

Rick

From: Bartley, Richard
Sent: Thursday, June 8, 2017 9:07 AM
To: Smith, Suzanne
Subject: Re: Concurrence Email: CAA Section 111(d) Plan for MSW Landfills - TCEQ's Request for Extension of Plan Submittal Date

Uggh. I believe a prior version of the letter said that we "intend" to go through notice and comment. So that would probably be a better word to use.

From: Smith, Suzanne
Sent: Thursday, June 8, 2017 9:04:14 AM
To: Bartley, Richard
Subject: Re: Concurrence Email: CAA Section 111(d) Plan for MSW Landfills - TCEQ's Request for Extension of Plan Submittal Date

Jim noted that the briefing sheet says we will likely go through notice and comment while our letter says we will. We may want to be consistent whichever way is appropriate.

Sent from my iPhone

On Jun 8, 2017, at 8:31 AM, Bartley, Richard <Bartley.Richard@epa.gov> wrote:

> Here's the most recent version of the letter incorporating Wren's suggested edits provided this morning. Also, attached is the associated briefing sheet.
>
> Let me know if you have any questions.
>
> Rick
>
> ---
>
> **From:** Smith, Suzanne
> **Sent:** Thursday, June 8, 2017 8:07:10 AM
> **To:** Payne, James; Boyce, Kenneth

Cc: Stanton, Marya; Bartley, Richard
Subject: RE: Concurrence Email: CAA Section 111(d) Plan for MSW Landfills - TCEQ's Request for Extension of Plan Submittal Date

TCEQ requested an extension to the deadline to submit a plan for emission guidelines at existing MSWs. EPA has stayed the rules and is currently reconsidering the guidelines. This letter is essentially an interim response, explaining that we are reconsidering the regulations as a result of a petition for reconsideration and that a stay is in place. We will contact them prior to the expiration of the stay to determine what steps they wish to take at that time (extension request, submit according to schedule resulting from the reconsideration…..).

Attached is a more recent version of the letter, which was revised based on comments from Wren.

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Sent: Wednesday, June 07, 2017 5:21 PM
To: Boyce, Kenneth <boyce.kenneth@epa.gov>; Smith, Suzanne <Smith.Suzanne@epa.gov>
Cc: Stanton, Marya <Stanton.Marya@epa.gov>
Subject: FW: Concurrence Email: CAA Section 111(d) Plan for MSW Landfills - TCEQ's Request for Extension of Plan Submittal Date

Ken – thank you for the note below.

Suzanne – please review and advise.

Jim

From: Boyce, Kenneth
Sent: Wednesday, June 07, 2017 4:22 PM
To: Payne, James <payne.james@epa.gov>
Cc: Stanton, Marya <Stanton.Marya@epa.gov>

Subject: Concurrence Email: CAA Section 111(d) Plan for MSW Landfills - TCEQ's Request for Extension of Plan Submittal Date

Hello Jim,

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Thanks,

Ken Boyce, Environmental Protection Specialist
Air Planning Section (6MM-AB)
Multimedia, Planning & Permitting Division
U.S. EPA, Region 6
1445 Ross Ave, Suite 1200
Dallas, TX 75202-2733
PH: (214) 665-7259
FAX: (214) 665-7263

<MSW Landfill Plan - TCEQ Extension Request - Region 6 response.docx>

<Briefing Sheet - TCEQ Extension Request - Region 6 Response.pdf>

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U.S. EPA, Region 6
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Dallas, TX 75202-2733

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FAX: (214) 665-7263

<MSW Landfill Plan - TCEQ Extension Request - Region 6 response.docx>

<Briefing Sheet - TCEQ Extension Request - Region 6 Response.pdf>

To: Donaldson, Guy[Donaldson.Guy@epa.gov]
Cc: Stanton, Marya[Stanton.Marya@epa.gov]; Bartley, Richard[Bartley.Richard@epa.gov]; Smith, Suzanne[Smith.Suzanne@epa.gov]; Young, Carl[young.carl@epa.gov]
From: Boyce, Kenneth
Sent: Fri 6/2/2017 8:12:00 PM
Subject: Conference Call Notes for the TCEQ's MSW Landfill Plan Extension

Hi Guy,

The conference call this morning went well with Mr. Michael Wilhoit and Ms. Kati Wooten, Team Leader Air Permits. We talked for about 15 minutes and we informed them of the following:

•□□□□□□□□ We will continue to process their extension request, but the "Stay" has caused all actions to be on hold for 90 days, which would be the month of August for Region's decision on the extension request. Also, during this period it's a strong possibility that the EPA will have a FR notice published with a new comment period and other changes on the Landfill rule that could affect the Plan deadline dates and the TCEQ's extension request.

•□□□□□□□□ Informed TCEQ that the current Landfill rule still applies and that current permits are still good.

•□□□□□□□□ I committed to keeping TCEQ informed of the actions/issues that may come about during this Stay process of the Landfill rule.

Ken Boyce, Environmental Protection Specialist
Air Planning Section (6MM-AB)

Multimedia, Planning & Permitting Division
U.S. EPA, Region 6
1445 Ross Ave, Suite 1200
Dallas, TX 75202-2733
PH: (214) 665-7259
FAX: (214) 665-7263

To: Bartley, Richard[Bartley.Richard@epa.gov]
From: Boyce, Kenneth
Sent: Thur 6/1/2017 4:05:40 PM
Subject: FW: Landfills submittal

Hi Rick,

Hope you are having a good day. I'm kind of in agreement with Ed Merta on the below issues. But, I want to be sure we don't add any more confusion to this Landfill rule stay issue.

Ken Boyce, Environmental Protection Specialist

PH: (214) 665-7259
FAX: (214) 665-7263

From: Merta, Ed L. [mailto:emerta@cabq.gov]
Sent: Wednesday, May 31, 2017 1:56 PM
To: Boyce, Kenneth <boyce.kenneth@epa.gov>
Subject: RE: Landfills submittal

Thank you kind sir!

Two additional questions, regarding the 90 day stay, if I may. Apologies if this rehashes material from our phone call last week, just want to make sure I know what I'm doing!

1) My understanding is that prior to the stay, the deadline for EPA to approve our MSWL state plan (under 40 CFR 60.27) was four months after May 30, which would be around September 30. Should I assume that this date has now been pushed back 90 days, to around December 30? The reason I ask is that our recently adopted regulation on existing MSWLs calls for regulated facilities to begin complying with Subpart Cf once EPA approves our state plan, and so I'd like to be sure I understand the timeline for EPA approval.

2) Also, my understanding is that during the 90 day stay, EPA will issue a new proposed rule accepting comments on the aspects of Subparts Cf and XXX described in today's Federal Register notice. I assume that when the 90 day stay ends on August 29, Subparts Cf and XXX will still be in effect in their current form, and thus affected facilities will have to comply with them pending EPA's promulgation of a new final rule, which may not occur for a significant amount of time after August 29. Thus, it appears that once the 90 day stay expires, there will be a period, of unknown duration, in which existing and new MSWLs will have to comply with Subparts Cf (once EPA approves a state plan) or XXX, as applicable, rather than Subparts Cc or WWW. Is my understanding correct?

Any information appreciated, just want to make sure I can advise our folks here of what to expect in the coming months, in case they have questions from regulated sources.

Thanks very much!

-Ed

Ed Merta

Air Quality Regulation Development Coordinator

Air Quality Program

Environmental Health Department

City of Albuquerque

PO Box 1293

Albuquerque NM 87103

Phone: (505) 768-2660

emerta@cabq.gov

From: Boyce, Kenneth [mailto:boyce.kenneth@epa.gov]

Sent: Tuesday, May 30, 2017 12:53 PM
To: Merta, Ed L.
Subject: RE: Landfills submittal

Hi Ed,

Sorry about the confusion. Mr. Guy Donaldson has replaced Mark since his retirement. Have a good day. Stay safe.

Ken Boyce, Environmental Protection Specialist

PH: (214) 665-7259
FAX: (214) 665-7263

From: Merta, Ed L. [mailto:emerta@cabq.gov]
Sent: Tuesday, May 30, 2017 12:49 PM
To: Boyce, Kenneth <boyce.kenneth@epa.gov>
Subject: Landfills submittal

Hi Ken,

Quick question for you – when I sent you and others a heads up email last week about our submittal, I cc'd Mark Hansen but the email bounced back to him. For future reference, is someone else serving in his position now…?

Hope you had a great holiday, take care,

Ed Merta

Air Quality Regulation Development Coordinator

Air Quality Program

Environmental Health Department

City of Albuquerque

PO Box 1293

Albuquerque NM 87103

Phone: (505) 768-2660

emerta@cabq.gov

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Hi Mary -

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Ken Boyce, Environmental Protection Specialist
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U.S. EPA, Region 6
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PH: (214) 665-7259
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<MSW Landfill Plan - TCEQ Extension Request - Region 6 response.docx>

<Briefing Sheet - TCEQ Extension Request - Region 6 Response.pdf>

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Location: 7th Flr., Little Rock Conf. Rm.
Importance: Normal
Subject: Fw: R6-17-000-8205 Hyde - TCEQ request extension for MSWLs
Start Date/Time: Thur 6/8/2017 7:15:00 PM
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Subject: R6-17-000-8205 Hyde - TCEQ request extension for MSWLs
When: Thursday, June 8, 2017 2:15 PM-2:45 PM.
Where: 7th Flr., Little Rock Conf. Rm.

Texas: Request for extension of deadline for submittal of Section I l I(d) state plan for existing municipal solid waste landfills under 40 Code of Federal Regulations (CFR) Part 60, Subpart Cf. The Texas Commission on Environmental Quality (TCEQ) is requesting an extension of the deadline for submittal of a revised Section 111(d) state plan to implement the 40 CFR Part 60 Subpart Cf Emission Guidelines for Municipal Solid Waste Landfills (MSWL), as provided under 40 CFR S 60.27(a). Approximately a one year is needed to initiate and complete a typical State rulemaking project due to the statutory and administrative requirements which are required for rulemaking in Texas.

To: Stanton, Marya[Stanton.Marya@epa.gov]
From: Donaldson, Guy
Sent: Wed 9/28/2016 12:43:40 PM
Subject: FW: Question regarding state plan submittal on municipal solid waste landfills
1998 submittal guidance - main document on 111(d) state plan requirements.pdf
1998 submittal guidance - Appdx D - emission estimate procedures.pdf
1998 submittal guidance - Appdx K - emission inventory memo.pdf

Mary,

I agree with Kathleen. This doesn't fall under the Clean Power Plan. Not sure if Ken is still handling the non CPP 111(d) issues.

From: Aisling, Kathleen(R6)
Sent: Tuesday, September 27, 2016 6:00 PM
To: Boyce, Kenneth
Cc: Donaldson, Guy
Subject: FW: Question regarding state plan submittal on municipal solid waste landfills

Ken, this seems to be a landfill question and not a Clean Power Plan question, which addresses EGU's under 111(d). Why do you think that I am the contact? This hasn't been assigned to me that I know of.

Kathleen Aisling, Environmental Engineer

Air Quality Program

US EPA, Region 6, 1445 Ross Avenue

6MM-AA, Dallas, TX 75202

(214) 665-6406

From: Merta, Ed L. [mailto:emerta@cabq.gov]
Sent: Tuesday, September 27, 2016 5:48 PM
To: Aisling, Kathleen(R6) <Aisling.Kathleen@epa.gov>
Subject: Question regarding state plan submittal on municipal solid waste landfills

Hello Ms. Aisling,

I'm the regulation writer for the City of Albuquerque Air Quality Program, and I'm writing with a question that I originally directed to Ken Boyce, on the 111(d) emission guidelines for solid waste landfills. He let me know that you are now the POC on this matter and so I'm redirecting my question to you.

In a nutshell, I wrote out for Ken my understanding of the materials we will need to submit to EPA regarding (1) an inventory of sources in our jurisdiction and (2) the emission inventory for those sources. My write-up/summary on these two topics that I composed for Ken is below.

Would you mind reading it over when you have a chance and letting me know if it sounds like my understanding is correct, or provide corrections as necessary? I'm still fairly new to air quality and writing it out for more knowledgeable folks to review helps reassure me that I'm on the right track.

Feel free to call me anytime at 505-401-2746. Thank you very much for your time, I look forward to working with you on this submittal! Take care,

-Ed

Ed Merta

Air Quality Regulation Development Coordinator

Air Quality Program

Environmental Health Department

City of Albuquerque

PO Box 1293

Albuquerque NM 87103

Phone: (505) 768-2660

emerta@cabq.gov

From: Merta, Ed L. <emerta@cabq.gov>
Sent: Tuesday, September 27, 2016 4:23:48 PM
To: Boyce, Kenneth
Subject: Question regarding state plan submittal on MSWLs

Hello Ken,

Hope this finds you well!

I'm writing with a question regarding EPA requirements for state plan submittals on the new Section 111(d) emissions guidelines for existing municipal solid waste landfills (MSWLs).

My question relates, first, to the source inventory requirement (see 40 CFR 60.25 and the attached EPA guidance, pages 3-8 to 3-9) and, second, to the emissions inventory requirement (see 40 CFR 60.25 and the attached EPA guidance, pages 3-8 to 3-12 and Appendices D and K).

I just wanted to make sure that my understanding is correct of what we need to submit to EPA on

these two requirements by the May 30, 2017 deadline. To do that, I'd like to lay out my understanding in writing, for you to review.

Would you folks be able to take a look at the approach to our submittal that I propose below and let me know if it looks okay? I'm happy to follow up by phone, wanted to put something down in writing first as a basis for whatever follow up discussion is necessary.

My understanding of how to approach the <u>source inventory</u> requirement is as follows.

1. We should submit a list of all MSWLs that exist in our agency's jurisdiction and received solid waste from November 8, 1987 until July 14, 2014 or have additional capacity available to receive waste in the future. This list must include all landfills that exist, whether they're currently active or whether they're closed. My understanding is that our jurisdiction has only one active landfill currently, Cerro Colorado.

2. Our submittal must show the design capacity of all listed MSWLs that exist in our jurisdction, whether above or below the 2.5 million megagrams/cubic meters threshold.

3. Such information was included in our 2006 submittal under the old subpart Cc standard. My plan is to review that information and work with colleagues in state/local solid waste regulatory agencies to update the information as necessary.

My understanding of how to approach the <u>emission inventory</u> requirement is as follows.

1. We must include available data on actual emissions from all MSWLs that exist in our jurisdiction, where such data is available. My understanding from colleagues is that we have such emissions data for one landfill, Cerro Colorado. This is a Title V source, I believe. My understanding is that our plan submittal to EPA must include all the emissions data we have on this source, as far back in time as records have been kept. Currently, I believe this is the only MSWL active in our jurisdiction. I'm still researching whether we have emission data for any

closed landfills, but if we do my understanding is that we should submit this data to EPA with the plan submittal due May 30, 2017.

2. In the case of MSWLs for which we do not have actual reported emissions data, we should use the AP-42 emissions estimate procedure (attached guidance, pages 3-10 and 11) or the computer model mentioned in the attached guidance (page 3-11 and Appendix D). We should do this, if possible, for all MSWLs that we listed in the source inventory that I described above.

3. It may turn out to be unreasonable or impractical to develop emissions estimates for MSWLs below 2.5 million megagrams, due to the necessary underlying information being missing or incomplete. This may be especially true for landfills that are closed. See attached guidance, Appendix K. In that case, our agency would not include such data as part of our submittal. I currently don't know whether it might be unreasonable or impractical to gather such data. To make that assessment, I plan to consult with colleagues in our agency who specialize in emissions inventory, as well as with colleagues in state/local solid waste regulatory agencies. Based on what I find, I will consult further with EPA Region 6 prior to beginning our local public hearing process.

*****

To review, I'm hoping you folks can read over the approach that I propose above and let me know whether it looks okay or, instead, whether or not there is information missing or in need of correction.

Thank you so much for your time, and take good care.

Sincerely,

-Ed M.

Ed Merta

Air Quality Regulation Development Coordinator

Air Quality Program

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Appendix D

Emission Estimation Procedures for State Plan Emissions Inventory

Emission Estimation Procedures for State Plan Emissions Inventory

The pollutants emitted from municipal solid waste (MSW) landfills include methane, carbon dioxide and non-methane organic compounds. The attached chapter from the EPA document "Compilation of Air Pollution Emission Factors (AP-42)"[1] contains emission estimation procedures and default values that can be used to calculate methane, carbon dioxide, and NMOC emissions for MSW landfill emissions inventories and other purposes. Emissions are calculated using equations (which are based on a first order decomposition model), as a function of three variables: the NMOC concentration in landfill gas (C_{NMOC}), the methane generation rate constant (k); and the refuse methane generation potential (L_o). The default values for these variables presented in AP-42 are designed to provide typical, or average, estimates of MSW landfill emissions and are appropriate for use in state emission inventories. An individual MSW landfill may emit more or less than calculated based on site-specific factors. The AP-42 document also provides calculations for the use and adjustment of site-specific data, if it is available (that is, to adjust measured NMOC concentration data for air infiltration). If site-specific measured values are available, it is preferable to use these rather than the default values.

It should be stressed that the AP-42 default values should NOT be used to determine applicability of or compliance with the MSW landfills Emission Guidelines. Under the Emission Guidelines and the NSPS, the owner or operator must use the tiered emission estimation procedure in § 60.754 of Subpart WWW or another method if it has been approved by the EPA Administrator as provided in § 60.752(b)(2)(i)(B) to determine whether the annual emission rate equals or exceeds the 50 Mg/yr cutoff and whether the MSW landfill must be controlled. The owner or operator must use the equations and Tier 1 default values provided in the NSPS and the Emission Guidelines to determine NMOC emissions or develop site-specific values using the Tier 2 or 3 procedures in § 60.754. The equations in Subpart WWW are the same as the AP-42 equations. However, the Tier 1 default values for methane generation potential (L_o) and methane generation rate constant (k) provided in the NSPS and the Emission Guidelines are purposefully conservative to protect human health, to encompass a wide range of MSW landfills, and to encourage the use of site-specific data.

For more information about the AP-42 emission factors and documentation of the assumptions and calculations, see Chapter 2 in AP-42. The current version of AP-42 is included

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in this appendix (November 1998). Because AP-42 is updated periodically, the AP-42 section in this appendix should not be used for subsequent emission inventories unless verified to be current. For current information in AP-42, check the TTN Web at http:www.epa.gov/ttn/chief.

A computer model is also available to calculate MSW landfill emissions. The "Landfill Gas Emissions Model", utilizes a first-order decomposition model that is consistent with AP-42 and the NSPS and Emission Guidelines equations to estimate emissions of methane, carbon dioxide, NMOC and other pollutants. The model combines user-entered landfill operating characteristics with defaults derived from either the MSW landfills NSPS and Emission Guidelines or AP-42 to provide yearly estimates of gaseous emissions. These estimates may be displayed as text or in graphical depictions. The model also allows the user to replace internal defaults with landfill specific parameters to refine the calculations for a specific site.

The model is consistent with the equations specified in the MSW landfill NSPS and Emission Guidelines. MSW landfills using the model to calculate annual emission rates for purposes of NSPS or Emission Guidelines applicability determination must use the NSPS default values rather than the AP-42 default values. Those using the model for a state emissions inventory or for NSR or PSD permitting purposes should use site-specific measured values, and if these are not available, the AP-42 defaults.

A package with a diskette containing the model as well as the user's guide is available under the title: "Landfill Gas Emissions Model, Users Manual," Version 2.01 and may be purchased from:

National Technical Information Service
5285 Port Royal Road
Springfield, VA 22161
Telephone: (703) 487-4650

or:

accessed on the EPA TTN Web at http://www.epa.gov/ttn/catc/products.html# software.

Additionally, information or questions regarding the models and their operation may be obtained from Susan A. Thorneloe, the EPA Project Officer overseeing its development. She may be contacted at:

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Air and Energy Engineering Research Laboratory
U.S. Environmental Protection Agency
Research Triangle Park, NC 27711
Fax: (919) 541-2382
thorneloe.susan@epamail.epa.gov

REFERENCES

1. U.S. EPA. Compilation of Air Pollutant Emission Factors, 5th ed. (AP-42), Volume I: Stationary Point and Area Sources, Section 2.4: Municipal Solid Waste Landfills," Research Triangle Park, North Carolina: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, November, 1998.

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2.4 MUNICIPAL SOLID WASTE LANDFILLS

2.4.1 General[1-4]

A municipal solid waste (MSW) landfill unit is a discrete area of land or an excavation that receives household waste, and that is not a land application unit, surface impoundment, injection well, or waste pile. An MSW landfill unit may also receive other types of wastes, such as commercial solid waste, nonhazardous sludge, and industrial solid waste. The municipal solid waste types potentially accepted by MSW landfills include (most landfills accept only a few of the following categories):

- MSW,
- Household hazardous waste,
- Municipal sludge,
- Municipal waste combustion ash,
- Infectious waste,
- Waste tires,
- Industrial non-hazardous waste,
- Conditionally exempt small quantity generator (CESQG) hazardous waste,
- Construction and demolition waste,
- Agricultural wastes,
- Oil and gas wastes, and
- Mining wastes.

In the United States, approximately 57 percent of solid waste is landfilled, 16 percent is incinerated, and 27 percent is recycled or composted. There were an estimated 2,500 active MSW landfills in the United States in 1995. These landfills were estimated to receive 189 million megagrams (Mg) (208 million tons) of waste annually, with 55 to 60 percent reported as household waste, and 35 to 45 percent reported as commercial waste.

2.4.2 Process Description[2,5]

There are three major designs for municipal landfills. These are the area, trench, and ramp methods. All of these methods utilize a three step process, which includes spreading the waste, compacting the waste, and covering the waste with soil. The trench and ramp methods are not commonly used, and are not the preferred methods when liners and leachate collection systems are utilized or required by law. The area fill method involves placing waste on the ground surface or landfill liner, spreading it in layers, and compacting with heavy equipment. A daily soil cover is spread over the compacted waste. The trench method entails excavating trenches designed to receive a day's worth of waste. The soil from the excavation is often used for cover material and wind breaks. The ramp method is typically employed on sloping land, where waste is spread and compacted similar to the area method, however, the cover material obtained is generally from the front of the working face of the filling operation.

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Modern landfill design often incorporates liners constructed of soil (i.e., recompacted clay), or synthetics (i.e., high density polyethylene), or both to provide an impermeable barrier to leachate (i.e., water that has passed through the landfill) and gas migration from the landfill.

2.4.3 Control Technology[1,2,6]

The Resource Conservation and Recovery Act (RCRA) Subtitle D regulations promulgated on October 9, 1991 require that the concentration of methane generated by MSW landfills not exceed 25 percent of the lower explosive limit (LEL) in on-site structures, such as scale houses, or the LEL at the facility property boundary.

The New Source Performance Standards (NSPS) and Emission Guidelines for air emissions from MSW landfills for certain new and existing landfills were published in the Federal Register on March 1, 1996. The regulation requires that Best Demonstrated Technology (BDT) be used to reduce MSW landfill emissions from affected new and existing MSW landfills emitting greater than or equal to 50 Mg/yr (55 tons/yr) of non-methane organic compounds (NMOCs). The MSW landfills that are affected by the NSPS/Emission Guidelines are each new MSW landfill, and each existing MSW landfill that has accepted waste since November 8, 1987, or that has capacity available for future use. The NSPS/Emission Guidelines [require control systems for] ~~affect~~ landfills with a design capacity of 2.5 million Mg (2.75 million tons) [and 2.5 million cubic meters (3.27 million cubic yards) that emit greater than or equal to 50 Mg/yr NMOCs]* ~~or more~~. Control systems require: (1) a well-designed and well-operated gas collection system, and (2) a control device capable of reducing NMOCs in the collected gas by 98 weight-percent.

Landfill gas (LFG) collection systems are either active or passive systems. Active collection systems provide a pressure gradient in order to extract LFG by use of mechanical blowers or compressors. Passive systems allow the natural pressure gradient created by the increase in pressure created by LFG generation within the landfill to mobilize the gas for collection.

LFG control and treatment options include (1) combustion of the LFG, and (2) purification of the LFG. Combustion techniques include techniques that do not recover energy (i.e., flares and thermal incinerators), and techniques that recover energy (i.e., gas turbines and internal combustion engines) and generate electricity from the combustion of the LFG. Boilers can also be employed to recover energy from LFG in the form of steam. Flares involve an open combustion process that requires oxygen for combustion, and can be open or enclosed. Thermal incinerators heat an organic chemical to a high enough temperature in the presence of sufficient oxygen to oxidize the chemical to carbon dioxide (CO_2) and water. Purification techniques can also be used to process raw landfill gas to pipeline quality natural gas by using adsorption, absorption, and membranes.

*[This clarification will be reflected in the next revision of AP-42.]

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2.4.4 Emissions[2,7]

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Methane (CH_4) and CO_2 are the primary constituents of landfill gas, and are produced by microorganisms within the landfill under anaerobic conditions. Transformations of CH_4 and CO_2 are mediated by microbial populations that are adapted to the cycling of materials in anaerobic environments. Landfill gas generation, including rate and composition, proceeds through four phases. The first phase is aerobic [i.e., with oxygen (O_2) available] and the primary gas produced is CO_2. The second phase is characterized by O_2 depletion, resulting in an anaerobic environment, where large amounts of CO_2 and some hydrogen (H_2) are produced. In the third phase, CH_4 production begins, with an accompanying reduction in the amount of CO_2 produced. Nitrogen (N_2) content is initially high in landfill gas in the first phase, and declines sharply as the landfill proceeds through the second and third phases. In the fourth phase, gas production of CH_4, CO_2, and N_2 becomes fairly steady. The total time and phase duration of gas generation varies with landfill conditions (i.e., waste composition, design management, and anaerobic state).

Typically, LFG also contains a small amount of non-methane organic compounds (NMOC). This NMOC fraction often contains various organic hazardous air pollutants (HAP), greenhouse gases (GHG), and compounds associated with stratospheric ozone depletion. The NMOC fraction also contains volatile organic compounds (VOC). The weight fraction of VOC can be determined by subtracting the weight fractions of individual compounds that are non-photochemically reactive (i.e., negligibly-reactive organic compounds as defined in 40 CFR 51.100).

Other emissions associated with MSW landfills include combustion products from LFG control and utilization equipment (i.e., flares, engines, turbines, and boilers). These include carbon monoxide (CO), oxides of nitrogen (NO_x), sulfur dioxide (SO_2), hydrogen chloride (HCl), particulate matter (PM) and other combustion products (including HAPs). PM emissions can also be generated in the form of fugitive dust created by mobile sources (i.e., garbage trucks) traveling along paved and unpaved surfaces. The reader should consult AP-42 Volume I Sections 13.2.1 and 13.2.2 for information on estimating fugitive dust emissions from paved and unpaved roads.

The rate of emissions from a landfill is governed by gas production and transport mechanisms. Production mechanisms involve the production of the emission constituent in its vapor phase through vaporization, biological decomposition, or chemical reaction. Transport mechanisms involve the transportation of a volatile constituent in its vapor phase to the surface of the landfill, through the air boundary layer above the landfill, and into the atmosphere. The three major transport mechanisms that enable transport of a volatile constituent in its vapor phase are diffusion, convection, and displacement.

2.4.4.1 Uncontrolled Emissions — To estimate uncontrolled emissions of the various compounds present in landfill gas, total landfill gas emissions must first be estimated. Uncontrolled CH_4 emissions may be estimated for individual landfills by using a theoretical first-order kinetic model of methane production developed by the EPA.[8] This model is known as the Landfill Air Emissions Estimation model, and can be accessed from the Office of Air

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Quality Planning and Standards Technology Transfer Network Website (OAQPS TTN Web) in the Clearinghouse for Inventories and Emission Factors (CHIEF) technical area (URL

http://www.epa.gov/ttn/chief). The Landfill Air Emissions Estimation model equation is as follows:

$$Q_{CH_4} = L_o R (e^{-kc} - e^{-kt}) \quad (1)$$

where:

Q_{CH_4}	=	Methane generation rate at time t, m^3/yr;
L_O	=	Methane generation potential, m^3 CH_4/Mg refuse;
R	=	Average annual refuse acceptance rate during active life, Mg/yr;
e	=	Base log, unitless;
k	=	Methane generation rate constant, yr^{-1};
c	=	Time since landfill closure, yrs (c = 0 for active landfills); and
t	=	Time since the initial refuse placement, yrs.

It should be noted that the model above was designed to estimate LFG generation and not LFG emissions to the atmosphere. Other fates may exist for the gas generated in a landfill, including capture and subsequent microbial degradation within the landfill's surface layer. Currently, there are no data that adequately address this fate. It is generally accepted that the bulk of the gas generated will be emitted through cracks or other openings in the landfill surface.

Site-specific landfill information is generally available for variables R, c, and t. When refuse acceptance rate information is scant or unknown, R can be determined by dividing the refuse in place by the age of the landfill. If a facility has documentation that a certain segment (cell) of a landfill received *only* nondegradable refuse, then the waste from this segment of the landfill can be excluded from the calculation of R. Nondegradable refuse includes concrete, brick, stone, glass, plaster, wallboard, piping, plastics, and metal objects. The average annual acceptance rate should only be estimated by this method when there is inadequate information available on the actual average acceptance rate. The time variable, t, includes the total number of years that the refuse has been in place (including the number of years that the landfill has accepted waste and, if applicable, has been closed).

Values for variables L_o and k must be estimated. Estimation of the potential CH_4 generation capacity of refuse (L_o) is generally treated as a function of the moisture and organic content of the refuse. Estimation of the CH_4 generation constant (k) is a function of a variety of factors, including moisture, pH, temperature, and other environmental factors, and landfill operating conditions. Specific CH_4 generation constants can be computed by the use of EPA Method 2E (40 CFR Part 60 Appendix A).

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The Landfill Air Emission Estimation model includes both regulatory default values and recommended AP-42 default values for L_o and k. The regulatory defaults were developed for compliance purposes (NSPS/Emission Guideline). As a result, the model contains conservative L_o and k default values in order to protect human health, to encompass a wide range of landfills, and to encourage the use of site-specific data. Therefore, different L_o and k values may be appropriate in estimating landfill emissions for particular landfills and for use in an emissions inventory.

Recommended AP-42 defaults include a k value of 0.04/yr for areas recieving 25 inches or more of rain per year. A default k of 0.02/yr should be used in drier areas (<25 inches/yr). An L_o value of 100 m^3/Mg (3,530 ft^3/ton) refuse is appropriate for most landfills. Although the recommended default k and L_o are based upon the best fit to 21 different landfills, the predicted methane emissions ranged from 38 to 492% of actual, and had a relative standard deviation of 0.85. It should be emphasized that in order to comply with the NSPS/Emission Guideline, the regulatory defaults for k and L_o must be applied as specified in the final rule.

When gas generation reaches steady state conditions, LFG consists of approximately 40 percent by volume CO_2, 55 percent CH_4, 5 percent N_2 (and other gases), and trace amounts of NMOCs. Therefore, the estimate derived for CH_4 generation using the Landfill Air Emissions Estimation model can also be used to represent CO_2 generation. Addition of the CH_4 and CO_2 emissions will yield an estimate of total landfill gas emissions. If site-specific information is available to suggest that the CH_4 content of landfill gas is not 55 percent, then the site-specific information should be used, and the CO_2 emission estimate should be adjusted accordingly.

Most of the NMOC emissions result from the volatilization of organic compounds contained in the landfilled waste. Small amounts may be created by biological processes and chemical reactions within the landfill. The current version of the Landfill Air Emissions Estimation model contains a proposed regulatory default value for total NMOC of 4,000 ppmv, expressed as hexane. However, available data show that there is a range of over 4,400 ppmv for total NMOC values from landfills. The proposed regulatory default value for NMOC concentration was developed for regulatory compliance purposes and to provide the most cost-effective default values on a national basis. For emissions inventory purposes, site-specific information should be taken into account when determining the total NMOC concentration. In the absence of site-specific information, a value of 2,420 ppmv as hexane is suggested for landfills known to have co-disposal of MSW and non-residential waste. If the landfill is known to contain only MSW or have very little organic commercial/industrial wastes, then a total NMOC value of 595 ppmv as hexane should be used. In addition, as with the landfill model defaults, the regulatory default value for NMOC content must be used in order to comply with the NSPS/Emission Guideline.

If a site-specific total pollutant concentration is available (i.e., as measured by EPA Reference Method 25C), it must be corrected for air infiltration which can occur by two different mechanisms: LFG sample dilution, and air intrusion into the landfill. These

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corrections require site-specific data for the LFG CH_4, CO_2, nitrogen (N_2), and oxygen (O_2) content. If the ratio of N_2 to O_2 is less than or equal to 4.0 (as found in ambient air), then the

$$C_P \text{ (ppmv) (corrected for air infiltration)} = \frac{C_P \text{ (ppmv) } (1 \times 10^6)}{C_{CO_2} \text{ (ppmv)} + C_{CH_4} \text{ (ppmv)}} \qquad (2)$$

total pollutant concentration is adjusted for sample dilution by assuming that CO_2 and CH_4 are the primary (100 percent) constituents of landfill gas, and the following equation is used:

where:

C_P	=	Concentration of pollutant P in landfill gas (i.e., NMOC as hexane), ppmv;
C_{CO_2}	=	CO_2 concentration in landfill gas, ppmv;
C_{CH_4}	=	CH_4 Concentration in landfill gas, ppmv; and
1×10^6	=	Constant used to correct concentration of P to units of ppmv.

If the ratio of N_2 to O_2 concentrations (i.e., C_{N_2}, C_{O_2}) is greater than 4.0, then the total pollutant concentration should be adjusted for air intrusion into the landfill by using equation 2 and adding the concentration of N_2 (i.e., C_{N_2}) to the denominator. Values for C_{CO_2}, C_{CH_4}, C_{N_2}, C_{O_2}, can usually be found in the source test report for the particular landfill along with the total pollutant concentration data.

To estimate emissions of NMOC or other landfill gas constituents, the following equation should be used:

$$Q_P = 1.82\ Q_{CH_4} * \frac{C_P}{(1 \times 10^6)} \qquad (3)$$

where:

Q_P	=	Emission rate of pollutant P (i.e. NMOC), m^3/yr;
Q_{CH_4}	=	CH_4 generation rate, m^3/yr (from the Landfill Air Emissions Estimation model);
C_P	=	Concentration of P in landfill gas, ppmv; and
1.82	=	Multiplication factor (assumes that approximately 55 percent of landfill gas is CH_4 and 45 percent is CO_2, N_2, and other constituents).

Uncontrolled mass emissions per year of total NMOC (as hexane), CO_2, CH_4, and speciated

$$UM_P = Q_P * \left[\frac{MW_P * 1 \text{ atm}}{(8.205 \times 10^{-5}\ m^3\text{-atm/gmol-}^\circ K)(1000 g/kg)(273 + T^\circ K)}\right] \qquad (4)$$

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organic and inorganic compounds can be estimated by the following equation:
where:

UM_P	=	Uncontrolled mass emissions of pollutant P (i.e., NMOC), kg/yr;
MW_P	=	Molecular weight of P, g/gmol (i.e., 86.18 for NMOC as hexane);
Q_P	=	NMOC emission rate of P, m^3/yr; and
T	=	Temperature of landfill gas, °C.

This equation assumes that the operating pressure of the system is approximately 1 atmosphere. If the temperature of the landfill gas is not known, a temperature of 25°C (77°F) is recommended.

Uncontrolled default concentrations of speciated organics along with some inorganic compounds are presented in Table 2.4-1. These default concentrations have already been corrected for air infiltration and can be used as input parameters to equation 3 or the Landfill Air Emission Estimation model for estimating speciated emissions from landfills when site-specific data are not available. An analysis of the data, based on the co-disposal history (with non-residential wastes) of the individual landfills from which the concentration data were derived, indicates that for benzene, NMOC, and toluene, there is a difference in the uncontrolled concentrations. Table 2.4-2 presents the corrected concentrations for benzene, NMOC, and toluene to use based on the site's co-disposal history.

It is important to note that the compounds listed in Tables 2.4-1 and 2.4-2 are not the only compounds likely to be present in LFG. The listed compounds are those that were identified through a review of the available literature. The reader should be aware that additional compounds are likely present, such as those associated with consumer or industrial products. Given this information, extreme caution should be exercised in the use of the default VOC weight fractions and concentrations given at the bottom of Table 2.4-2. These default VOC values are heavily influenced by the ethane content of the LFG. Available data have shown that there is a range of over 1,500 ppmv in LFG ethane content among landfills.

2.4.4.2 Controlled Emissions — Emissions from landfills are typically controlled by installing a gas collection system, and combusting the collected gas through the use of internal combustion engines, flares, or turbines. Gas collection systems are not 100 percent efficient in collecting landfill gas, so emissions of CH_4 and NMOC at a landfill with a gas recovery system still occur. To estimate controlled emissions of CH_4, NMOC, and other constituents in landfill gas, the collection efficiency of the system must first be estimated. Reported collection efficiencies typically range from 60 to 85 percent, with an average of 75 percent most commonly assumed. Higher collection efficiencies may be achieved at some sites (i.e., those engineered to control gas emissions). If site-specific collection efficiencies are available (i.e., through a comprehensive surface sampling program), then they should be used instead of the 75 percent average.

Controlled emission estimates also need to take into account the control efficiency of the control device. Control efficiencies based on test data for the combustion of CH_4, NMOC,

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and some speciated organics with differing control devices are presented in Table 2.4-3. Emissions from the control devices need to be added to the uncollected emissions to estimate total controlled emissions.

Controlled CH_4, NMOC, and speciated emissions can be calculated with equation 5. It is assumed that the landfill gas collection and control system operates 100 percent of the time. Minor durations of system downtime associated with routine maintenance and repair (i.e., 5 to 7 percent) will not appreciably effect emission estimates. The first term in equation 5 accounts for emissions from uncollected landfill gas, while the second term accounts for emissions of the pollutant that were collected but not combusted in the control or utilization device:

$$CM_P = \left[UM_P * \left(1 - \frac{\eta_{col}}{100}\right)\right] + \left[UM_P * \frac{\eta_{col}}{100} * \left(1 - \frac{\eta_{cnt}}{100}\right)\right] \quad (5)$$

where:

CM_P = Controlled mass emissions of pollutant P, kg/yr;
UM_P = Uncontrolled mass emissions of P, kg/yr (from equation 4 or the Landfill Air Emissions Estimation Model);
0_{col} = Collection efficiency of the landfill gas collection system, percent; and
0_{cnt} = Control efficiency of the landfill gas control or utilization device, percent.

Emission factors for the secondary compounds, CO and NO_x, exiting the control device are presented in Tables 2.4-4 and 2.4-5. These emission factors should be used when equipment vendor guarantees are not available.

Controlled emissions of CO_2 and sulfur dioxide (SO_2) are best estimated using site-specific landfill gas constituent concentrations and mass balance methods.[68] If site-specific data are not available, the data in tables 2.4-1 through 2.4-3 can be used with the mass balance methods that follow.

Controlled CO_2 emissions include emissions from the CO_2 component of landfill gas (equivalent to uncontrolled emissions) and additional CO_2 formed during the combustion of landfill gas. The bulk of the CO_2 formed during landfill gas combustion comes from the combustion of the CH_4 fraction. Small quantities will be formed during the combustion of the NMOC fraction, however, this typically amounts to less than 1 percent of total CO_2 emissions by weight. Also, the formation of CO through incomplete combustion of landfill gas will result in small quantities of CO_2 not being formed. This contribution to the overall mass balance picture is also very small and does not have a significant impact on overall CO_2 emissions.[68]

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The following equation which assumes a 100 percent combustion efficiency for CH_4 can be used to estimate CO_2 emissions from controlled landfills:

$$CM_{CO_2} = UM_{CO_2} + \left[UM_{CH_4} * \frac{\eta_{col}}{100} * 2.75\right] \quad (6)$$

where:

CM_{CO_2}	=	Controlled mass emissions of CO_2, kg/yr;
UM_{CO_2}	=	Uncontrolled mass emissions of CO_2, kg/yr (from equation 4 or the Landfill Air Emission Estimation Model);
UM_{CH_4}	=	Uncontrolled mass emissions of CH_4, kg/yr (from equation 4 on the Landfill Air Emission Estimation Model);
0_{col}	=	Efficiency of the landfill gas collection system, percent; and
2.75	=	Ratio of the molecular weight of CO_2 to the molecular weight of CH_4.

To prepare estimates of SO_2 emissions, data on the concentration of reduced sulfur compounds within the landfill gas are needed. The best way to prepare this estimate is with site-specific information on the total reduced sulfur content of the landfill gas. Often these data are expressed in ppmv as sulfur (S). Equations 3 and 4 should be used first to determine the uncontrolled mass emission rate of reduced sulfur compounds as sulfur. Then, the following equation can be used to estimate SO_2 emissions:

$$CM_{SO_2} = UM_S * \frac{\eta_{col}}{100} * 2.0 \quad (7)$$

where:

CM_{SO_2}	=	Controlled mass emissions of SO_2, kg/yr;
UM_S	=	Uncontrolled mass emissions of reduced sulfur compounds as sulfur, kg/yr (from equations 3 and 4);
0_{col}	=	Efficiency of the landfill gas collection system, percent; and
2.0	=	Ratio of the molecular weight of SO_2 to the molecular weight of S.

The next best method to estimate SO_2 concentrations, if site-specific data for total reduced sulfur compounds as sulfur are not available, is to use site-specific data for speciated reduced sulfur compound concentrations. These data can be converted to ppmv as S with equation 8. After the total reduced sulfur as S has been obtained from equation 8, then equations 3, 4, and 7 can be used to derive SO_2 emissions.

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$$C_S = \sum_{i=1}^{n} C_P * S_P \quad (8)$$

where:

C_S	=	Concentration of total reduced sulfur compounds, ppmv as S (for use in equation 3);
C_P	=	Concentration of each reduced sulfur compound, ppmv;
S_P	=	Number of moles of S produced from the combustion of each reduced sulfur compound (i.e., 1 for sulfides, 2 for disulfides); and
n	=	Number of reduced sulfur compounds available for summation.

If no site-specific data are available, a value of 46.9 ppmv can be assumed for C_S (for use in equation 3). This value was obtained by using the default concentrations presented in Table 2.4-1 for reduced sulfur compounds and equation 8.

Hydrochloric acid [Hydrogen Chloride (HCl)] emissions are formed when chlorinated compounds in LFG are combusted in control equipment. The best methods to estimate emissions are mass balance methods that are analogous to those presented above for estimating SO_2 emissions. Hence, the best source of data to estimate HCl emissions is site-specific LFG data on total chloride [expressed in ppmv as the chloride ion (Cl^-)]. If these data are not available, then total chloride can be estimated from data on individual chlorinated species using equation 9 below. However, emission estimates may be underestimated, since not every chlorinated compound in the LFG will be represented in the laboratory report (i.e., only those that the analytical method specifies).

$$C_{Cl} = \sum_{i=1}^{n} C_P * Cl_P \quad (9)$$

where:

C_{Cl}	=	Concentration of total chloride, ppmv as Cl^- (for use in equation 3);
C_P	=	Concentration of each chlorinated compound, ppmv;
Cl_P	=	Number of moles of Cl^- produced from the combustion of each chlorinated compound (i.e., 3 for 1,1,1-trichloroethane); and
n	=	Number of chlorinated compounds available for summation.

After the total chloride concentration (C_{Cl}) has been estimated, equations 3 and 4 should be used to determine the total uncontrolled mass emission rate of chlorinated compounds as chloride ion (UM_{Cl}). This value is then used in equation 10 below to derive HCl emission estimates:

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$$CM_{HCl} = UM_{Cl} * \frac{\eta_{col}}{100} * 1.03 * \left(1 - \frac{\eta_{cnt}}{100}\right) \quad (10)$$

where:

CM_{HCl}	=	Controlled mass emissions of HCl, kg/yr;
UM_{Cl}	=	Uncontrolled mass emissions of chlorinated compounds as chloride, kg/yr (from equations 3 and 4);
0_{col}	=	Efficiency of the landfill gas collection system, percent;
1.03	=	Ratio of the molecular weight of HCl to the molecular weight of Cl^-; and
0_{cnt}	=	Control efficiency of the landfill gas control or utilization device, percent.

In estimating HCl emissions, it is assumed that all of the chloride ion from the combustion of chlorinated LFG constituents is converted to HCl. If an estimate of the control efficiency, 0_{cnt}, is not available, then the high end of the control efficiency range for the equipment listed in Table 9 should be used. This assumption is recommended to assume that HCl emissions are not under-estimated.

If site-specific data on total chloride or speciated chlorinated compounds are not available, then a default value of 42.0 ppmv can be used for C_{Cl}. This value was derived from the default LFG constituent concentrations presented in Table 2.4-1. As mentioned above, use of this default may produce underestimates of HCl emissions since it is based only on those compounds for which analyses have been performed. The constituents listed in Table 2.4-1are likely not all of the chlorinated compounds present in LFG.

The reader is referred to Sections 11.2-1 (Unpaved Roads, SCC 50100401), and 11-2.4 (Heavy Construction Operations) of Volume I, and Section II-7 (Construction Equipment) of Volume II, of the AP-42 document for determination of associated fugitive dust and exhaust emissions from these emission sources at MSW landfills.

2.4.5 Updates Since the Fifth Edition

The Fifth Edition was released in January 1995. This is revision includes major revisions of the text and recommended emission factors conained in the section. The most significant revisions to this section since publication in the Fifth Edition are summarized below.

- The equations to calculate the CH4, CO2 and other constituents were simplified.
- The default L0 and k were revised based upon an expanded base of gas generation data.
- The default ratio of CO2 to CH4 was revised based upon averages observed in available source test reports.
- The default concentrations of LFG constituents were revised based upon additional data.

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- Additional control efficiencies were included and existing efficiencies were revised based upon additional emission test data.

- Revised and expanded the recommended emission factors for secondary compounds emitted from typical control devices.

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Table 2.4-1. DEFAULT CONCENTRATIONS FOR LFG CONSTITUENTS[a]
(SCC 50100402, 50300603)

Compound	Molecular Weight	Default Concentration (ppmv)	Emission Factor Rating
1,1,1-Trichloroethane (methyl chloroform)[a]	133.42	0.48	B
1,1,2,2-Tetrachloroethane[a]	167.85	1.11	C
1,1-Dichloroethane (ethylidene dichloride)[a]	98.95	2.35	B
1,1-Dichloroethene (vinylidene chloride)[a]	96.94	0.20	B
1,2-Dichloroethane (ethylene dichloride)[a]	98.96	0.41	B
1,2-Dichloropropane (propylene dichloride)[a]	112.98	0.18	D
2-Propanol (isopropyl alcohol)	60.11	50.1	E
Acetone	58.08	7.01	B
Acrylonitrile[a]	53.06	6.33	D
Bromodichloromethane	163.83	3.13	C
Butane	58.12	5.03	C
Carbon disulfide[a]	76.13	0.58	C
Carbon monoxide[b]	28.01	141	E
Carbon tetrachloride[a]	153.84	0.004	B
Carbonyl sulfide[a]	60.07	0.49	D
Chlorobenzene[a]	112.56	0.25	C
Chlorodifluoromethane	86.47	1.30	C
Chloroethane (ethyl chloride)[a]	64.52	1.25	B
Chloroform[a]	119.39	0.03	B
Chloromethane	50.49	1.21	B
Dichlorobenzene[c]	147	0.21	E
Dichlorodifluoromethane	120.91	15.7	A
Dichlorofluoromethane	102.92	2.62	D
Dichloromethane (methylene chloride)[a]	84.94	14.3	A
Dimethyl sulfide (methyl sulfide)	62.13	7.82	C
Ethane	30.07	889	C
Ethanol	46.08	27.2	E
Ethyl mercaptan (ethanethiol)	62.13	2.28	D
Ethylbenzene[a]	106.16	4.61	B

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Table 2.4-1. (Concluded)

Compound	Molecular Weight	Default Concentration (ppmv)	Emission Factor Rating
Ethylene dibromide	187.88	0.001	E
Fluorotrichloromethane	137.38	0.76	B
Hexane[a]	86.18	6.57	B
Hydrogen sulfide	34.08	35.5	B
Mercury (total)[a,d]	200.61	2.92×10^{-4}	E
Methyl ethyl ketone[a]	72.11	7.09	A
Methyl isobutyl ketone[a]	100.16	1.87	B
Methyl mercaptan	48.11	2.49	C
Pentane	72.15	3.29	C
Perchloroethylene (tetrachloroethylene)[a]	165.83	3.73	B
Propane	44.09	11.1	B
t-1,2-dichloroethene	96.94	2.84	B
Trichloroethylene (trichloroethene)[a]	131.38	2.82	B
Vinyl chloride[a]	62.50	7.34	B
Xylenes[a]	106.16	12.1	B

NOTE: This is not an all-inclusive list of potential LFG constituents, only those for which test data were available at multiple sites. References 10-67. Source Classification Codes in parentheses.

[a] Hazardous Air Pollutants listed in Title III of the 1990 Clean Air Act Amendments.

[b] Carbon monoxide is not a typical constituent of LFG, but does exist in instances involving landfill (underground) combustion. Therefore, this default value should be used with caution. Of 18 sites where CO was measured, only 2 showed detectable levels of CO.

[c] Source tests did not indicate whether this compound was the para- or ortho- isomer. The para isomer is a Title III-listed HAP.

[d] No data were available to speciate total Hg into the elemental and organic forms.

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Table 2.4-2. DEFAULT CONCENTRATIONS OF BENZENE, NMOC, AND TOLUENE BASED ON WASTE DISPOSAL HISTORY[a]

(SCC 50100402, 50300603)

Pollutant	Molecular Weight	Default Concentration (ppmv)	Emission Factor Rating
Benzene[b]	78.11		
Co-disposal		11.1	D
No or Unknown co-disposal		1.91	B
NMOC (as hexane)[c]	86.18		
Co-disposal		2420	D
No or Unknown co-disposal		595	B
Toluene[b]	92.13		
Co-disposal		165	D
No or Unknown co-disposal		39.3	A

[a] References 10-54. Source Classification Codes in parentheses.
[b] Hazardous Air Pollutants listed in Title III of the 1990 Clean Air Act Amendments.
[c] For NSPS/Emission Guideline compliance purposes, the default concentration for NMOC as specified in the final rule must be used. For purposes not associated with NSPS/Emission Guideline compliance, the default VOC content at co-disposal sites = 85 percent by weight (2,060 ppmv as hexane); at No or Unknown sites = 39 percent by weight 235 ppmv as hexane).

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Table 2.4-3. CONTROL EFFICIENCIES FOR LFG CONSTITUENTS[a]

Control Device	Constituent[b]	Control Efficiency (%)		
		Typical	Range	Rating
Boiler/Steam Turbine (50100423)	NMOC	98.0	96-99+	D
	Halogenated Species	99.6	87-99+	D
	Non-Halogenated Species	99.8	67-99+	D
Flare[c] (50100410) (50300601)	NMOC	99.2	90-99+	B
	Halogenated Species	98.0	91-99+	C
	Non-Halogenated Species	99.7	38-99+	C
Gas Turbine (50100420)	NMOC	94.4	90-99+	E
	Halogenated Species	99.7	98-99+	E
	Non-Halogenated Species	98.2	97-99+	E
IC Engine (50100421)	NMOC	97.2	94-99+	E
	Halogenated Species	93.0	90-99+	E
	Non-Halogenated Species	86.1	25-99+	E

[a] References 10-67. Source Classification Codes in parentheses.
[b] Halogenated species are those containing atoms of chlorine, bromine, fluorine, or iodine. For any equipment, the control efficiency for mercury should be assumed to be 0. See section 2.4.4.2 for methods to estimate emissions of SO_2, CO_2, and HCl.
[c] Where information on equipment was given in the reference, test data were taken from enclosed flares. Control efficiencies are assumed to be equally representative of open flares.

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Table 2.4-4. (Metric Units) EMISSION FACTORS FOR SECONDARY COMPOUNDS EXITING CONTROL DEVICES[a]

Control Device	Pollutant[b]	Typical Rate, kg/hr/dscmm Methane	Emission Factor Rating
Flare[c]	Nitrogen dioxide	0.039	C
(50100410)	Carbon monoxide	0.72	C
(50300601)	Particulate matter	0.016	D
IC Engine	Nitrogen dioxide	0.24	D
(50100421)	Carbon monoxide	0.45	C
	Particulate matter	0.046	E
Boiler/Steam Turbine[d]	Nitrogen dioxide	0.032	D
(50100423)	Carbon monoxide	5.4×10^{-3}	E
	Particulate matter	7.9×10^{-3}	D
Gas Turbine	Nitrogen dioxide	0.083	D
(50100420)	Carbon monoxide	0.22	E
	Particulate matter	0.021	E

[a] Source Classification Codes in parentheses.
[b] No data on PM size distributions were available, however for other gas-fired combustion sources, most of the particulate matter is less than 2.5 microns in diameter. Hence, this emission factor can be used to provide estimates of PM-10 or PM-2.5 emissions. See section 2.4.4.2 for methods to estimate CO_2, SO_2, and HCl.
[c] Where information on equipment was given in the reference, test data were taken from enclosed flares. Control efficiencies are assumed to be equally representative of open flares.
[d] All source tests were conducted on boilers, however emission factors should also be representative of steam turbines. Emission factors are representative of boilers equipped with low-NO_x burners and flue gas recirculation. No data were available for uncontrolled NO_x emissions.

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Table 2.4-5. (English Units) EMISSION RATES FOR SECONDARY COMPOUNDS EXITING CONTROL DEVICES[a]

Control Device	Pollutant[b]	Typical Rate, lb/hr/dscfm Methane	Emission Factor Rating
Flare[c]	Nitrogen dioxide	2.4×10^{-3}	C
(50100410)	Carbon monoxide	0.045	C
(50300601)	Particulate matter	1.0×10^{-3}	D
IC Engine	Nitrogen dioxide	0.015	D
(50100421)	Carbon monoxide	0.028	C
	Particulate matter	2.9×10^{-3}	E
Boiler/Steam Turbine[d]	Nitrogen dioxide	2.0×10^{-3}	E
(50100423)	Carbon monoxide	3.4×10^{-4}	E
	Particulate matter	4.9×10^{-4}	E
Gas Turbine	Nitrogen dioxide	5.2×10^{-3}	D
(50100420)	Carbon monoxide	0.014	D
	Particulate matter	1.3×10^{-3}	E

[a] Source Classification Codes in parentheses.
[b] Based on data for other combustion sources, most of the particulate matter will be less than 2.5 microns in diameter. Hence, this emission rate can be used to provide estimates of PM-10 or PM-2.5 emissions. See section 2.4.4.2 for methods to estimate CO_2, SO_2, and HCl.
[c] Where information on equipment was given in the reference, test data were taken from enclosed flares. Control efficiencies are assumed to be equally representative of open flares.
[d] All source tests were conducted on boilers, however emission factors should also be representative of steam turbines. Emission factors are representative of boilers equipped with low-NO_x burners and flue gas recirculation. No data were available for uncontrolled NO_x emissions.

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Appendix K

Memo: Emission Inventory for MSWLF State Plans

January 27, 1997

MEMORANDUM

SUBJECT: Emission Inventories for Existing Municipal Solid Waste (MSW) Landfills with Design Capacities below 2.5 million Mg or 2.5 million m^3

FROM: Bruce C. Jordan, Director
Emission Standards Division (MD-13)

Robert G. Kellam, Acting Director
Information Transfer and Program Integration Division (MD-12)

TO: Regional Air Directors, Regions I-X

Introduction

The States are required to prepare and submit State plans for existing MSW landfills [landfills that have accepted waste since November 8, 1987 or have the capacity to accept future waste and are not new; i.e., not subject to 40 CFR Part 60, Subpart WWW, new source performance standards (NSPS)]. This State plan is required under 40 CFR 60, Subparts B and Cc [Emission Guidelines (EG's)]. The plan will state the requirements that existing MSW landfills will need to comply with to meet the EG's. Also, as part of the State plan, 40 CFR 60.25 requires the States to include "an inventory of all designated facilities, including emissions data for the designated pollutants." Id.

In addition to the requirement for State plans, owners and operators of MSW landfills with design capacities of less than 2.5 million Mg or 2.5 million m^3 are required to submit a design capacity report under the EG's and NSPS [40 CFR 60.752 (a), 60.757. See also, 40 CFR 60.35(c)]. However, unlike owners and operators of larger MSW landfills who must also submit a nonmethane organic compound (NMOC) emissions rate report and possibly install gas collection and controls, no additional requirements apply to landfills with design capacities of less than 2.5 million Mg or 2.5 million m^3. As noted in the preamble to the

final rule, "small landfills below 2.5 million Mg design capacity are not subject to (emission) standards under section 111 because they are not subject to controls and are not subject to emission limits," 61 FR 9905, 9912 (March 12, 1996).

Summary

In view of the limited requirements of the EG and NSPS on landfill owners and operators of MSW landfills below 2.5 million Mg or 2.5 million m^3, the Environmental Protection Agency (EPA) will allow States, in limited circumstances, to submit emission inventories as part of State plans without requiring that, in all cases, that States develop emissions data for MSW landfills below 2.5 million Mg or 2.5 million m^3 where development of such data would be unreasonable and impractical. However, where accurate data are already available, or can reasonably be generated without undue expense or effort, States should require and include such data in their State plans. Example situations of "reasonable and practical" are given below in the section, Requirements of State Plans: Emissions Data. This easing of the NMOC emission inventory requirement, however, does not relieve States of the obligation to provide, as part of their State plan, an inventory of all existing MSW landfills within the State.

The EPA believes that allowing States to provide emissions data for such MSW landfills with design capacities below 2.5 million Mg or 2.5 million m^3 only where accurate and reasonably available information can be generated, is reasonable given that the applicable NSPS and the EG simply require a design capacity report and do not require additional emissions monitoring or controls. The EPA also believes that requiring such information in all cases will either lead to the submission of inaccurate, misleading and provisional information or to additional and costly testing inconsistent with EPA's previous determination to only require design capacity reports for such landfills. [See e.g., 61 FR 9905, 9916 (March 12, 1996), which states that "The design capacity cutoff of 2.5 million Mg or 2.5 million cubic meters was chosen . . . to relieve as many small businesses and municipalities as possible from the regulatory requirements while still maintaining significant emission reduction."

This guidance memo does not, however, preclude States from including emissions information from these existing MSW landfills in their State plans and in their annual reporting of emissions to EPA if they choose to do so. As noted previously, it also does not relieve States from the requirement to provide an inventory of existing landfills in State plans.

The EPA reserves the right to request emissions information under section 114(a) of the Clean Air Act, if it determines that such information can be obtained reasonably and practically.

Requirements of State Plans: Emissions Data

In summary of the previous discussion, States need not include NMOC emissions from MSW landfills with a design capacity below 2.5 million Mg or 2.5 million m^3 from the State plan emission inventory where the estimation of these emissions is unreasonable and impractical. This section addresses specific situations of "unreasonable and impractical" and "reasonable and practical."

It may be unreasonable and impractical for an MSW landfill below 2.5 million Mg or 2.5 million m^3 to estimate NMOC emissions when a landfill is closed and there are no records of waste in place. However, States should require emissions data when it is reasonable and practical to obtain the information needed to calculate NMOC emissions, for example, when the amount of waste deposited and age of the waste can be reasonably obtained. If waste has been recently deposited such that this information would be reasonably expected to be available, then these NMOC emissions should be included in the emission inventory. Also, if a landfill has a design capacity below but close to 2.5 million Mg or 2.5 million m^3, greater consideration should be given before a decision is made to not require NMOC emissions in the emission inventory because the public may have more interest in the environmental impact of the emissions from such a landfill.

In the situation where an MSW landfill is subject to title V operating permits because it is a major source or because of another reason [e.g., subject to another NSPS or national emission standard for hazardous air pollutants (NESHAP)], this landfill should comply with the emission inventory requirement even if the landfill is below 2.5 million Mg or 2.5 million m^3 in design capacity. The reason is that emissions from title V permitted landfills must be reported under title V and thus, it would be reasonable to include these emissions estimates in the emission inventory for the State plan.

In addition to the requirement to report NMOC emissions in the State plan, 40 CFR 60.25 also requires the annual reporting of emissions by States to EPA for existing landfills whose emissions have changed more than 5 percent from the most recently submitted emissions data. For States with landfills with design capacities below 2.5 million Mg or 2.5 million m^3 for which emissions data were not initially reported, this emissions reporting requirement would not necessarily be reasonable or practical and, thus, States are not required to meet this reporting requirement for such landfills. However, where a State previously did not require emissions data for a landfill close to or at the 2.5 million Mg or 2.5 million m^3 cutoff, and there is reason to believe emissions may have increased by greater than 5 percent, a State may want to reconsider whether emissions data should be required.

The allowance for exclusion of NMOC emissions from certain landfills below 2.5 million Mg or 2.5 million m^3 from the emission inventory does not affect the requirement for States to submit an inventory of existing MSW landfills with the State plans. The 40 CFR

60.25 requires such an inventory of landfills in the State plan and this memo does not modify this requirement. It is reasonable to expect States to know what landfills are in their geographic area and to provide this information in their State plans.

If you have any questions on this guidance, please feel free to contact Mary Ann Warner at (919) 541-1192.

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United States
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Office of Air Quality
Planning and Standards
Research Triangle Park, NC 27711

EPA-456R/98-009
November 1998

Air

Municipal Solid Waste Landfills, Volume 2:

Summary of the Requirements for Section 111(d) State Plans for Implementing the Municipal Solid Waste Landfills Emission Guidelines

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Municipal Solid Waste Landfills, Volume 2: Summary of the Requirements for Section 111(d) State Plans for Implementing the Municipal Solid Waste Landfill Emission Guidelines

EPA-456/R-98-009

Office of Air Quality Planning and Standards
U.S. Environmental Protection Agency
Research Triangle Park, North Carolina 27711

November 1998

ABSTRACT

This guidance document explains the State plan development and approval process, and explains the regulations developed under the Clean Air Act (CAA) as they apply to municipal solid waste (MSW) landfills. The CAA requires States to adopt and submit a State plan to implement the Emission Guidelines developed under the CAA. This document discusses the regulations developed under Section 111(d) of the Clean Air Act, focusing on Subpart Cc, Emission Guidelines for existing MSW landfills; and Subpart B, Adoption and Submittal of State plans for designated facilities. In addition, the document outlines and explains the required content of State plans, outlines the timeline and responsibilities for developing and submitting State plans, and answers general questions about how to prepare State plans. The appendices include reference materials States may need when developing State plans. For example, copies of relevant regulations, policy memos, procedures for estimating emissions, and a list of MSW landfill rule contacts who can assist in developing the State plan are included. This volume is one of a series of documents designed to assist States, EPA regional offices, and MSW landfill owners and operators in implementing the New Source Performance Standards (NSPS) and Emission Guidelines. Full references to all related documents are provided in the Executive Summary.

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Municipal Solid Waste Landfills, Volume 2:
Summary of the Requirements for Section 111(d)
State Plans for Implementing the
Municipal Solid Waste Landfills
Emission Guidelines
EPA-456/R-98-009

Available at:

(1) U.S. Environmental Protection Agency
401 M Street, SW
Washington, DC 20460

Air and Radiation Docket and Information Center
Room M-1500 Waterside Mall, Ground Floor
Phone: 202-260-7548
Docket Number: A-88-09
Item number: II-B-54

(2) U.S. Environmental Protection Agency
Regional Office Libraries (Regions I-X)
(see Appendix C for Addresses)

(3) U.S. Environmental Protection Agency
EPA Technology Transfer Network Website (TTN Web)

Unified Air Toxics Website: Rule and Implementation Information for Standards of Performance for Municipal Solid Waste Landfills
http://www.epa.gov/ttn/uatw/landfill/landflpg.html

or

Office of Air Policy and Guidance (OAR P&G)
http://www.epa.gov/ttn/oarpg

The file is located under:
Actions Sorted by CAA Title
Title I
Policy and Guidance Memos.

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LIST OF ACRONYMS AND ABBREVIATIONS

AFS	Aerometric Emissions Information Retrieval System Facility Subsystem
CAA	Clean Air Act (of 1990)
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
EPA	U.S. Environmental Protection Agency
FR	Federal Register
Mg	Megagram (2204 lb)
MSW	Municipal Solid Waste
MWC	Municipal Waste Combustor
NAAQS	National Ambient Air Quality Standards
NMOC	Non-methane organic compounds
NSPS	New Source Performance Standard
NSR	New Source Review
SIP	State Implementation Plan
TAR	Tribal Authority Rule
TTN Web	EPA Technology Transfer Network Website

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EXECUTIVE SUMMARY

This is the second of two guidance documents designed to assist States, EPA regional offices, and Municipal Solid Waste (MSW) landfill owners and operators in implementing the New Source Performance Standards (NSPS) and Emission Guidelines. The NSPS apply to new landfills, whereas the Emission Guidelines pertain to existing landfills. States must develop State plans as part of the implementation process for the Emission Guidelines for existing landfills in their State. Indian Tribes are not required to submit Tribal plans, but may submit Tribal plans to implement and enforce the Emission Guidelines in Indian country. The purpose of this document is to explain the State plan development and approval process. This volume, "Municipal Solid Waste Landfills, Volume 2: Summary of the Requirements for Section 111(d) State plans for Implementing the Municipal Solid Waste Landfill Emission Guidelines," EPA-456/R-96-005 (MSW Landfills, Volume 2), draws together the relevant information from the various Federal regulations that affect existing MSW landfills to give the State regulatory agencies the information they need to develop State plans. Background information is provided on the MSW landfills regulations that have been developed under Section 111 of the Clean Air Act (CAA). States must include specific information in their State plans and must comply with a specific schedule. The required content of State plans and the adoption and submittal schedule are outlined below and are discussed in detail in the body of this guidance document. The first guidance document, Volume 1, and related documents that will assist States in developing their plans are briefly discussed in the section of this Executive Summary entitled "Related Documents."

This document is a revision of the final draft published in October 1996, EPA-456/R-96-005. It has been revised to reflect the amendments to the NSPS and Emission Guidelines published on June 16, 1998 (63 FR 32743) and to update other information.

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Background

Air pollution emissions from MSW landfills are regulated by various federal regulations promulgated to implement the CAA of 1990. This document addresses the MSW landfills regulations that have been developed under Section 111 of the CAA. Section 111 of the CAA addresses Standards of Performance for Stationary Sources.

Federal air pollution rules promulgated in the Code of Federal Regulations (CFR) that affect MSW landfills include: (1) Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills [Title 40 CFR Part 60, Subpart Cc]; (2) New Source Performance Standards for MSW Landfills [Title 40 CFR Part 60 Subpart WWW]; and (3) rules governing the Adoption and Submittal of State plans for Designated Facilities [Title 40 CFR Part 60, Subpart B]. This document focuses on the Emission Guidelines and the rules governing State plans. Appendices G and H of this document contain the full text of Section 111(d) and Subpart B, respectively. Appendix I contains the full text of Subparts Cc and WWW, including amendments published on June 16, 1998 (63 FR 32743).

The Subpart Cc Emission Guidelines apply to existing MSW landfills. States with existing MSW landfills must implement the Emission Guidelines. As part of the implementation effort, States must develop a State plan and submit it for approval to the U.S. Environmental Protection Agency (EPA). Together, Subpart B and Subpart Cc specify the State plan content and the general rules for adopting and submitting State plans.

State plan requirements for MSW landfills are similar to those for municipal waste combustor (MWC) units because they are both regulated under Section 111(d) of the CAA. However, there are differences because MWC units are regulated under Section 129 of the CAA in addition to Section 111(d).

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Section 129 addresses Solid Waste Combustion and does not apply to MSW landfills; therefore, State plans for MSW landfills will differ slightly from State plans for MWC units and other section 129 State plans.

State Plan Content

On March 12, 1996 the EPA adopted (1) Emission Guidelines for existing MSW landfills and (2) New Source Performance Standards for new MSW landfills. On June 16, 1998, EPA published a notice to amend, correct errors, and clarify regulatory text. These amendments did not affect the due date or the required contents of State plans for existing landfills. The CAA requires that State regulatory agencies implement the Emission Guidelines according to a State plan developed under Section 111(d) of the CAA, and that they submit the State plan to EPA within nine months of EPA's adoption of the Emission Guidelines. The CAA and the Tribal Authority Rule (TAR) allow, but do not require, Indian Tribes to develop Tribal plans in the same manner as States if the Indian Tribe meets criteria outlined in the TAR.

State plans must contain specific information and legal mechanisms necessary to implement the Emission Guidelines. The minimum requirements are listed below and are discussed in detail in Section 3 and Appendix J.

- Identification of enforceable State mechanisms selected by the State for implementing the Emission Guidelines;
- A demonstration of the State's legal authority to carry out the Section 111(d) State plan as submitted;
- An inventory of existing MSW landfills in the State affected by the Emission Guidelines. An existing landfill may be active (currently accepting waste or having additional capacity available to accept waste) or closed (no longer accepting waste nor having available capacity for future waste deposition).

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- An inventory of emissions from existing MSW landfills in the State that are affected by the Emission Guidelines;

- Emission standards for existing MSW landfills that are no less stringent than those in the Emission Guidelines;[1]

- A State process, as stipulated in § 60.33c(b) of Subpart Cc, for State review and approval of site-specific gas collection and control system design plans;

- Compliance schedules, extending no later than 30 months after the date the annual NMOC emission rate reaches or exceeds 50 megagrams (Mg) per year;

- Testing, monitoring, recordkeeping, and reporting requirements;

- A record of public hearing(s) on the State plan; and

- Provision for annual State progress reports to EPA on implementation of the State plan.

Schedule

States must adopt and submit a State plan to EPA within nine months (December 12, 1996) after promulgation of the Emission Guidelines. The State must make available to the public the State plan implementing the Emission Guidelines and provide opportunity for discussion of the State plan in a public hearing prior to submittal to EPA. EPA then has four months (April 12, 1997) to approve or disapprove the State plan. Plan approval or disapproval will be published in the Federal Register (FR). If a plan is disapproved, EPA will State the reasons for disapproval in the FR. If a State does not submit an approvable State plan, EPA will adopt and implement a Federal Plan.

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[1]On a case-by-case basis, the State may provide for a less stringent standard or a longer compliance schedule if the State demonstrates to EPA that the criteria in § 60.24(f) of Subpart B are met, and the EPA approves the standard or schedule. See Section 3.11 for additional information.

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Related Documents

A number of related documents and resources are available that may prove useful to States, EPA regional offices, and landfill owners and operators. These documents are available as indicated below, however, these and other landfill-related documents are available on the EPA Technology Transfer Network Website (TTN web) at: http//www.epa.gov/ttn/uatw/ landfill/landflpg.html.

- "Municipal Solid Waste Landfills, Volume 1: Summary of the Requirements, for the New Source Performance Standards and Emission Guidelines for Municipal Solid Waste Landfills," EPA-453/R-96-004 (MSW Landfills, Volume 1 is posted on the TTN web and explains landfills NSPS and Emission Guideline control, monitoring, recordkeeping and reporting requirements, and assists States in determining compliance. The document is also available in the docket (see address on page iv).

- "Municipal Solid Waste Landfill New Source Performance Standards and Emission Guidelines—Issues and Answers," is posted on the TTN Web and contains a periodically updated summary of answers to questions EPA has recently been asked about the MSW Landfills NSPS and Emission Guidelines.

- "Air Emissions from Municipal Solid Waste Landfills — Background Information for Final Standards and Guidelines," EPA-453/R-94-021 contains summaries of public comments received on the landfills NSPS and Emission Guidelines, EPA's responses, and the estimated impacts of these regulations. This document may be obtained from the TTN Web, the U.S. EPA Library (MD-33), Research Triangle Park, NC 27711, telephone (919) 541-2777, or from the docket (see addresses on page iv).

- EPA's Landfill Methane Outreach Program (LMOP). To cost-effectively reduce methane emissions from landfills, the EPA encourages the development of environmentally and economically beneficial landfill gas-to-energy projects through the LMOP. The LMOP works with States, utilities, and the landfill gas-to-energy industry to facilitate the

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development of successful projects. One of the key ways the LMOP does this is by publishing technical information on how to develop a gas-to-energy project including current technology, cost, and financing options, and regulatory considerations. Appendix C includes information on how to contact LMOP.

- C "Landfill Gas Emissions Model" Version 2.01 and User's Manual, September 1998. The computer model can be used to calculate annual emission rates as to determine applicability of the NSPS or Emission Guidelines or for State emission inventory or other purposes. The user's guide and diskettes can be obtained from the National Technical Information Services, as described in Appendix D, or accessed on the TTN Web at http://www.epa.gov/ttn/catc/products.html#software.

Appendix C includes information on how to contact landfill resources, including EPA regional and State contacts and EPA contacts for LMOP, the landfill model, implementation model, implementation issues, and other information. Documents posted on the TTN Web may be accessed by computer as described on page iv. The user can download an electronic copy from the TTN Web. Printed copies of the documents are available as discussed above.

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1.0 INTRODUCTION

The purpose of this document is to assist the State air regulatory agencies in developing State plans that implement regulations controlling air pollutant emissions from municipal solid waste (MSW) landfills. The United States Environmental Protection Agency (EPA) has developed regulations to control air pollutant emissions from MSW landfills under the Clean Air Act of 1990. Emissions from new MSW landfills are addressed by standards of performance for new sources (New Source Performance Standards [NSPS]), and emissions from existing MSW landfills are addressed by standards of performance for existing sources (Emission Guidelines). EPA promulgated the NSPS (Subpart WWW) and Emission Guidelines (Subpart Cc) for MSW landfills on March 12, 1996, and published amendments on June 16, 1998. States are required to develop State plans to implement the Emission Guidelines for existing sources and submit the State plans to EPA by December 12, 1996. Indian Tribes may submit, but are not required to submit, Tribal plans to implement and enforce the emission guidelines in Indian country. This document provides State agencies and Indian Tribes information on the required content of these State plans. In some cases, local agencies, or protectorates of the of the United States may submit plans for landfills in their jurisdictions. The same guidance applies. The word “State plan” used throughout this document includes tribal plans developed by Indian Tribes and plans developed by agencies or protectorates.

Another document has been prepared to assist States, Tribes, EPA regional offices, and MSW landfill owners and operators in implementing the NSPS and Emission Guidelines. A September 1998 draft document entitled, "Municipal Solid Waste Landfills, Volume 1: Summary of the Requirements for the New Source Performance Standards and Emission Guidelines for Municipal Solid Waste Landfills," EPA-453/R-96-004 (MSW Landfills, Volume 1) is posted on the EPA Technology Transfer Network Website (TTN Web). The

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September 1998 version of MSW Landfills Volume 1 replaces and updates a March 1996 draft to reflect the rule amendments published on June 16, 1998. Volume 1 provides a plain English summary of the requirements of the NSPS and Emission Guidelines. It contains example forms that may be used for reporting. It also contains tools, such as checklists, that may be used by regulatory agencies to determine landfill compliance with the rules. A question-and-answer document, "Municipal Solid Waste Landfill New Source Performance Standards and Emission Guidelines—Questions and Answers" is also posted on the TTN Web, and contains answers to questions EPA has been asked about the MSW Landfills NSPS and Emission Guidelines. The document may be updated as additional questions are received. The TTN Web address for these documents is http://www.epa.gov/ttn/uatw/landfill/landflpg.html.

1.1 Organization of this Document

This document brings together the information on the relevant parts of the various regulations that affect existing MSW landfills, i.e., those that were constructed, modified or reconstructed before May 30, 1991 and have not been modified or reconstructed since May 30, 1991 and that have accepted waste since November 8, 1987 or have additional capacity available for future waste deposition. These regulations were developed under Section 111(d) of the Clean Air Act. The regulations are codified in Title 40 of the Code of Federal Regulations (CFR). The CFR rules include (1) Adoption and Submittal of State plans for designated facilities, Subpart B, and (2) the Emission Guidelines for existing MSW landfills, Subpart Cc.

This document provides information on the relevant requirements of the Clean Air Act and the Emission Guidelines, and the required contents of State plans, including an overview of Clean Air Act, regulatory, and State plan requirements (Section 1); information on the timeline and responsibilities for developing and submitting State plans (Section 2); the elements of a State plan

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(Section 3); and answers to some general questions about preparing State plans (Section 4).

The appendices of this document (Table 1-1) include reference materials that States may find useful when developing the State plans. The appendices include copies of Section 111(d), relevant regulations, policy memos, procedures for estimating MSW landfill emissions, and contact lists.

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Table 1-1. Appendices to this Document

Appendix	Title
A	Emission Guideline Fact Sheet (40 CFR 60 Subpart Cc)
B	MSW Landfills Implementation Timeline
C	State, Regional, and Other Contacts
D	Emission Estimation Procedures for State Plan Emissions Inventory
E	New Source Review
F	Title V Operating Permits White Paper Number 2
G	Clean Air Act Section 111(d)
H	40 CFR 60 Subpart B
I	40 CFR 60 Subparts Cc and WWW, including the June 16, 1998 Amendments
J	Key Elements of an Acceptable Section 111(d) State Plan
K	Memo: Emission Inventory for MSWLF State Plans

1.2 Clean Air Act Requirements

Section 111(d) (see Appendix G) has been included in the Clean Air Act since the 1970's and requires EPA to establish procedures for submitting State plans for implementing Emission Guidelines. The landfill standard is a health-based Emission Guideline. Procedures and requirements for health-based Emission Guidelines are different from welfare-based. Because the landfills Emission Guidelines are health-based, this document focuses on the procedures and requirements for health-based Emission Guidelines. The first health-based Emission Guideline adopted was for sulfuric acid plants in 1977. Other health- and welfare-based Emission Guidelines have been adopted since that time. The State plans implement and provide for enforcing the Emission Guidelines. Detailed procedures for submitting and approving State plans were promulgated by EPA in 1975 as 40 CFR Part 60, Subpart B and amended in 1979, 1989, and 1995 (see Appendix H). The MSW landfill Emission Guidelines (Subpart Cc)

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were promulgated on March 12, 1996, under the authority of Section 111(d) of the Act, and were amended on June 16, 1998.

The Subpart Cc Emission Guidelines for MSW landfills differ from those adopted for MWC units because MSW landfills are regulated under Section 111(d) of the CAA, whereas MWC units are regulated under Sections 111(d) and 129 of the CAA. Section 129 does not apply to MSW landfills. Therefore, the State plan requirements for landfills are slightly different than those for MWC units or other Section 129 State plans. In particular, Subpart B requires that State plans for MSW landfills be submitted to EPA within nine months after promulgation of Emission Guidelines; whereas the Section 129 requirements that apply to MWC units have a different schedule.

1.3 Indian Tribes and State Plans

Indian Tribes are not required to submit State or Tribal plans. However, Indian Tribes have the authority under the CAA to develop Tribal plans in the same manner States develop State plans. On February 12, 1998, EPA promulgated regulations that outline provisions of the CAA for which EPA is authorized to treat Indian Tribes in the same manner as States (see 63 FR 7254, Indian Tribes: Air Quality Planning and Management). If the Indian Tribe meets certain criteria, it may submit for EPA approval a Tribal plan to implement and enforce the Emission Guidelines in Indian country. If an Indian Tribe chooses to prepare a Tribal plan, the Indian Tribe would follow this guidance the same way as a State.

1.4 MSW Landfills Covered by State Plans

State plans must address existing landfills that are subject to the Emission Guidelines for MSW landfills. These Emission Guidelines outlined in Table 1-2 were promulgated on March 12, 1996 (61 FR 9905), and codified in

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40 CFR Part 60, Subpart Cc. Amendments to clarify the Emission Guidelines were published in the Federal Register on June 16, 1998 (63 FR 32743). The amended rule will be published in Subpart Cc when the next version of the CFR is published.

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Table 1-2. Outline of the Emission Guidelines for MSW Landfills (40 CFR Part 60, Subpart Cc)

Section	Contents
60.30c	Scope
60.31c	Definitions
60.32c	Designated facilities
60.33c	Emission guidelines for municipal solid waste landfill emissions
60.34c	Test methods and procedures
60.35c	Reporting and recordkeeping guidelines
60.36c	Compliance times

The Emission Guidelines apply to existing MSW landfills, i.e., those that commenced construction, modification, or reconstruction before May 30, 1991 and that have accepted waste at any time since November 8, 1987 or have additional capacity for future waste deposition. New landfills (those that commenced construction, modification, or reconstruction on or after May 30, 1991) need not be addressed by State plans. Modification means an increase in the permitted volume design capacity by either horizontal or vertical expansion. New, modified, and reconstructed landfills are subject to the federal NSPS (40 CFR Part 60 Subpart WWW), which has similar requirements to the Emission Guidelines.

The pollutant regulated by Subpart Cc is MSW landfill emissions, which contain a mixture of VOC, other organic compounds, methane, and toxic pollutants. To determine whether control is required, non-methane organic compounds (NMOC) are measured as a surrogate for MSW landfill emissions. The NSPS and Emission Guidelines are summarized in a fact sheet included in this document (see Appendix A). The full text of the Emission Guidelines (Subpart Cc) including the direct final amendments is also provided (see Appendix I).

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1.5 Requirements for State Plans

States are required to develop Section 111(d) State plans to implement the MSW landfill Emission Guidelines and to submit plans to EPA for approval. The first step for meeting the State plan requirement is to identify existing MSW landfills that are subject to the Emission Guidelines that are located in the State. If there are no existing MSW landfills in the State, then the State need only submit a letter of certification to that effect, which is called a negative declaration, and no plan is submitted. States may also submit negative declarations if they have no existing MSW landfills with design capacities greater than or equal to 2.5 million megagrams (Mg) and 2.5 million cubic meters (m^3). Such negative declarations must include the design capacities of the landfills. (The Emission Guidelines do not require control for landfills with design capacities less than 2.5 million Mg or 2.5 million m^3.) Existing MSW landfills that are closed must be included in the MSW landfill inventory if they have accepted waste at any time since November 8, 1987, or have additional capacity for future waste deposition.

States that have existing MSW landfills and have not submitted a negative declaration are required to submit a Section 111(d) State plan. As a minimum, the State plan must include the following elements which are discussed in detail in Section 3.0.

- Identification of enforceable State mechanisms selected by the State for implementing the Emission Guidelines;
- A demonstration of the State's legal authority to carry out the Section 111(d) State plan as submitted;
- An inventory of existing MSW landfills in the State affected by the Emission Guidelines;
- An inventory of emissions from existing MSW landfills in the State;

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- Emission standards for existing MSW landfills;
- A process for State review and approval of site-specific gas collection and control system design plans;
- Compliance schedules;
- Testing, monitoring, recordkeeping, and reporting requirements;
- A record of public hearing(s) on the State plan; and
- Provision for annual progress reports to EPA.

The State plans are due to EPA by December 12, 1996. Table 1-3 summarizes the regulations for adopting and submitting State plans, as codified in Subpart B of 40 CFR Part 60, and specifies the required elements of the plans.

1.6 Relationship Between the Section 111(d) State Plan and SIP

The State plans for implementing the MSW landfill Emission Guidelines are different from State Implementation Plans (SIP) required by Sections 110 or 172 of the Clean Air Act. The State plan and the SIP are both programs for State implementation of federal requirements. For both, the administrative procedures, particularly the public hearing process, are the same. Both programs are designed to achieve emission reductions at sources by identifying the pollutant to be controlled, establishing the emission limits for the source, and establishing procedures to ensure that emission limits are met.

However, the States and EPA fulfill different responsibilities under the two programs. The goal of Section 111(d) State plans is to control the emissions of designated pollutants[2] by establishing standards of performance for

[2] The MSW landfills Section 111(d) Plans apply to MSW landfill emissions, measured as NMOC.

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existing sources. Section 111(d) Emission Guidelines (including emission standards or performance levels) are based on demonstrated technology and are established by EPA on a national level, and the States are responsible for developing and implementing a program to achieve compliance with these standards. The goal of the SIPs, on the other hand, is to attain and maintain National Ambient Air Quality Standards (NAAQS) or ambient concentrations for certain criteria pollutants (lead, SO_2, PM_{10}, NO_2, CO, and ozone) in a given area. Hence, in the SIP program, the State

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Table 1-3. Regulations for Adopting and Submitting State Plans (40 CFR 60 Subpart B)

Section Number and Title		General Contents
60.20	Applicability	Subpart B applies when final guidelines (Subpart Cc) are promulgated.
60.21	Definitions	Defines key terms.
60.22	Publication of guideline documents, Emission Guidelines, and final compliance times	Describes contents of Emission Guidelines to be developed by EPA.
60.23	Adoption and submittal of State plans, public hearings	Schedules and procedures for States to follow in developing and submitting State plans. Requirements for public hearings on State plans.
60.24	Emission standards[a] and compliance schedules	State plans must include emission standards and compliance schedules. State plans may be no less stringent than the guidelines, except as provided in § 60.24(f).
60.25	Emission inventories, source surveillance, reports	Plans must include an inventory of existing MSW landfills and their emissions and provisions for monitoring compliance. States must submit progress reports to EPA.
60.26	Legal authority	Plans must demonstrate that the State has legal authority to carry out the plan as submitted.
60.27	Actions by the Administrator	Procedures for EPA review and approval or disapproval of plans. Federal Plans will be developed if States have not submitted timely and approvable plans.
60.28	Plan revisions[b] by the State	Procedures for revision of plans.
60.29	Plan revisions[b] by the Administrator	Procedures for revision of plans.

[a] Note that "emission standards" can include any State enforceable mechanisms including, but not limited to, State rules (see Section 3.1 in this document).
[b] Plan revisions refer to changes to a State Plan that is already in place.

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establishes emission standards or standards based on the sources' contributions to local air quality, meteorology, and other local factors. The emission control requirements for a regulated source category under a SIP may vary from plant to plant based on local factors.

The States are responsible for implementing both Section 111(d) State plans and SIP programs, and both programs complement each other. Where the SIP requirements are adequate to meet the Section 111(d) standard, the State may elect to submit a Section 111(d) State plan that relies on the requirements in the SIP, Section 110, to meet the Section 111(d) emission standard. In addition, where the Section 111(d) requirements protect the NAAQS, the State may elect to rely on these requirements in the control strategy in the SIP.

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2.0 SCHEDULE AND RESPONSIBILITIES

To develop a State plan to implement and enforce the Emission Guidelines, the States, EPA, and landfill owners and operators have specific responsibilities in developing, reviewing, and complying with State plans, as discussed below. Appendix B also discusses the timeline for MSW landfills to comply with the Emission Guidelines.

2.1 State Plan Schedule

States must submit a plan to implement and enforce the Emission Guidelines within nine months after promulgation of the Emission Guidelines. According to 40 CFR § 60.23(a), States are required by EPA to adopt and submit to the Administrator a plan implementing requirements of the Emission Guidelines. Within the nine months, or before December 12, 1996, States must develop a State plan, hold public hearings, and submit the plan to the Administrator. Figure 2-1 is a flow chart showing the approval process. Table 2-1 is a suggested schedule for developing State plans. The table shows more detail on the steps States need to take to develop State plans.

After the State plan is submitted, EPA is required to approve or disapprove the State plan within four months (approximately April 12, 1997). It is possible for the Administrator to approve a portion of the plan and disapprove another portion. EPA's decision to approve or disapprove each State plan will be published in the Federal Register (FR). Final decisions will be codified in 40 CFR Part 62, "Approval and Promulgation of State plans for Designated Facilities and Pollutants." If a plan is not approved, the basis for disapproval will be discussed in the FR notice. For plans that are disapproved, the State should submit a corrected plan that addresses these concerns. If a State does not submit an approvable plan, EPA will promulgate a Federal Plan for the State.

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Under certain circumstances, a State may request an extension of the period to submit a plan or corrected plan (see Section 3.11.1).

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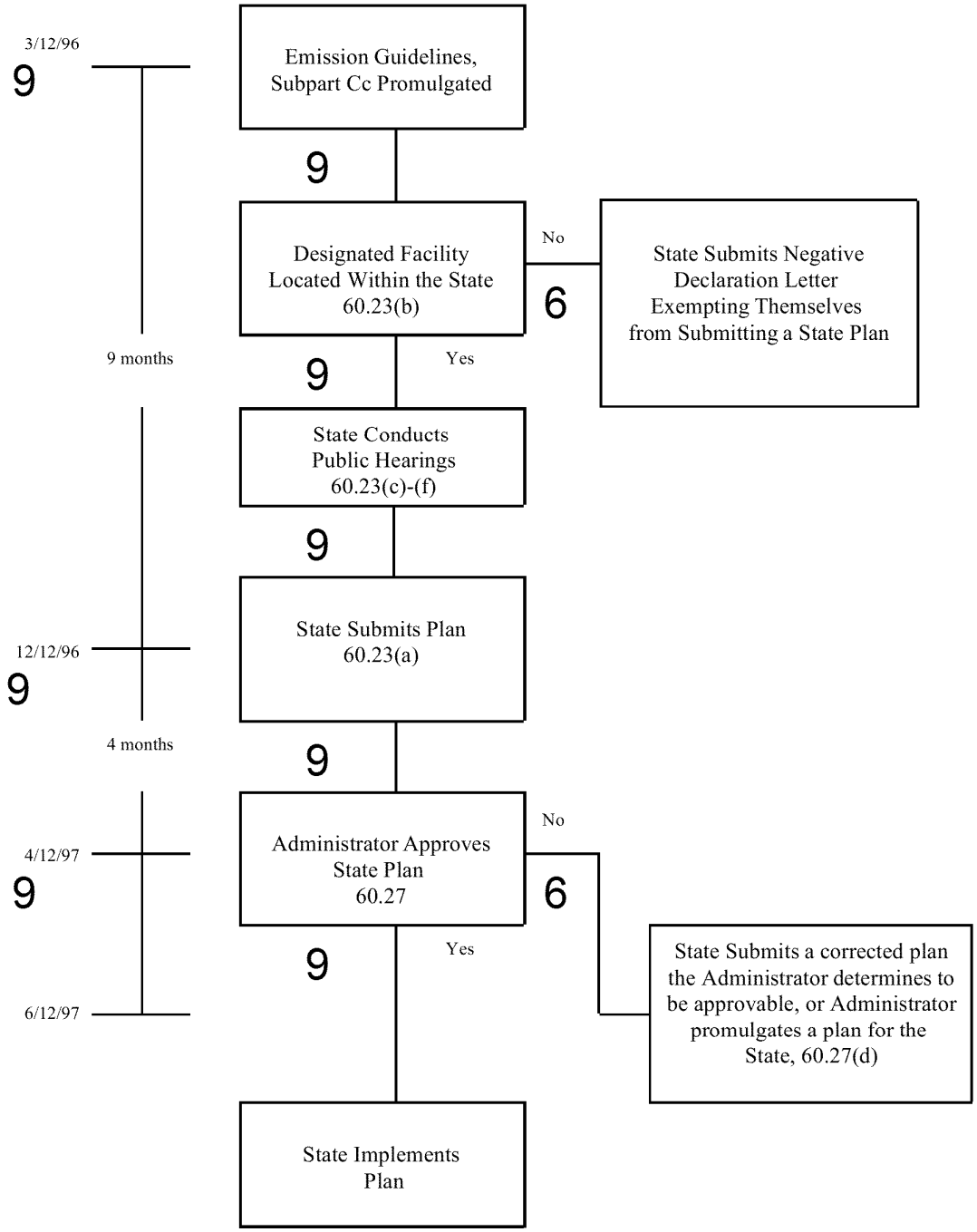

Figure 2-1. State Plan Approval Process and Schedule

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Table 2-1. Suggested Schedule for Section 111(d) State Plans

Action	Date
EPA promulgates Emission Guidelines	March 12, 1996
EPA posts draft Guidance Document Volume 1 on the TTN Web	March 1996
State decides what State authority to use	April 1996
State starts rulemaking or other procedure needed to ensure State authority	May 1996
State starts drafting State plan	August 1996
State posts notice of public hearings	September 1996 (30 days before hearing)
EPA issues guidance on Section 111(d) State plans	October 1996
State completes rulemaking or other procedure needed to ensure State authority	October 1996
State completes public hearing on State plan	October 1996
State submits State plan to EPA (Regional Office) unless an extension is received	December 12, 1996
State responds to any clarifications requested by EPA	During the 4 month period following December 12, 1996
EPA approves/disapproves the State plan	April 12, 1997
EPA promulgates Federal Plan if State has not submitted an approvable State plan	1999[a]

[a]A Federal Plan is expected to be proposed in late 1998 and promulgated in 1999.

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State plans may need to be modified in response to clarifying amendments to the Emission Guidelines. A direct-final notice to amend the guidelines was published in the Federal Register on June 16, 1998. Under 40 CFR § 60.23(a)(2), States have 9 months to adopt and submit to EPA plan revisions consistent with the revised Emission Guidelines. EPA would then review plan revisions and approve or disapprove them within 4 months. Because the amendments were primarily corrections and clarifications, any changes to State plans are expected to be minor.

2.2 Responsibilities

EPA, the States, and owners and operators of MSW landfills are responsible for implementing the Emission Guidelines. The primary responsibilities are outlined below.

2.2.1 EPA Responsibilities

Assisting State, Local, and Tribal Programs and MSW Landfill Owners and Operators. EPA assists State, local, and tribal agencies in developing approvable Section 111(d) State plans. EPA provides information, answers questions, and interprets federal requirements for the State and for MSW landfill owners and operators. EPA conducts outreach and compliance assistance programs. EPA identifies contact persons to answer States' questions, clarify approval criteria, and address specific implementation issues as necessary. States' questions should be directed to the appropriate EPA contact to ensure efficient and consistent responses. (See Appendix C for a list of State, regional, and other contacts.)

Review of State Plans. EPA is required to approve or disapprove the State plan within four months of the submittal due date (December 12, 1996). States must develop their Section 111(d) State plans according to the criteria in

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this document and 40 CFR Part 60, Subpart B. EPA will inform the State if the EPA has questions about the State plan before making a decision on the approval or disapproval of the State plan.

Federal Plan. In the event approvable State plans (or local or tribal agency plans) are not submitted, EPA will develop and implement a Federal Plan for those landfills not covered by State plans or Tribal plans. The Federal Plan is expected to be a gap-filling action. When a State or Tribal plan is submitted and approved after the Federal Plan is in effect, the Federal Plan will no longer apply to MSW landfills covered by the State or Tribal plan after the State or Tribal plan becomes effective.

Related Programs. EPA reviews and comments on State development of Title V operating permits. Title V permits are not a required component of State plan submittal, nor are they required for EPA approval of the State plan.

2.2.2 State Responsibilities

Developing a State Plan. The State develops and submits a State plan that meets the criteria presented in Section 111(d), the Emissions Guidelines, and this document. This document outlines how States can meet this responsibility. In some cases, local agencies, Indian Tribes, or protectorates, rather than States, may develop plans for landfills in their jurisdictions. The same responsibilities apply.

Establishing Compliance Schedules. The State plan must develop emission limits and compliance schedules for all existing MSW landfills in the State. States should meet with MSW landfill owners and operators to develop compliance schedules to ensure a workable Section 111(d) State plan. All MSW landfills addressed by the State plan that have a design capacity equal to or greater than 2.5 million Mg and 2.5 million m^3 must install emission controls

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within 30 months after the landfill NMOC emission rate report shows NMOC emissions reach or exceed 50 Mg/yr. States may require compliance sooner, but not later, than specified in the Emission Guidelines, except in unusual case-by-case situations (see Section 3.11).

Submitting Progress Reports. States must report annually to the EPA on the progress of implementing the plan, including the status of meeting increments of progress and achieving final compliance. The States must also include in an annual report (as specified in Section 3.10) compliance status, enforcement actions, and updates on MSW landfill information and emission data.

Related Programs. Once EPA approves a State's Section 111(d) plan and it is effective, all applicable requirements from the plan and all the terms and conditions needed to assure compliance with the applicable requirements must be incorporated into Title V permits for those MSW landfills that are subject to Title V and the Emission Guidelines. See White Paper Number 2 in Appendix F for EPA guidance on improving the implementation of Title V operating permits programs.

Some MSW landfills are on the Superfund national priorities list. The Emission Guidelines apply to existing MSW landfills, including Superfund sites that meet these criteria. State plans should include such landfills. In addition to being subject to the requirements of the Emission Guidelines, these landfills may need to undergo remedial actions under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). For consistency, the requirements of the Emission Guidelines should be considered when determining case-by-case CERCLA remedial actions at Superfund sites. This is discussed further in the preamble to the promulgated NSPS and guidelines (61 FR 9909, March 12, 1996).

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2.2.3 Landfill Owners and Operators Responsibilities

Developing Compliance Schedules and Installing Controls. MSW landfill owners and operators must work with the State to develop a compliance plan and control system schedule for the State plan that are both workable and meet requirements established by the State to implement the Emission Guidelines. The schedule for achieving compliance generally must be as stringent as the Emission Guidelines, however, on a case-by-case basis, the flexibility of the Emission Guidelines allows some variations from the schedules specified in § 60.33c of Subpart Cc and § 60.757 of Subpart WWW (see section 3.11 for additional information). Since landfill owners and operators need to comply with their State's requirements, they should consult with their State for schedules specific to their landfills. An example schedule of submittals and compliance times is described below for landfill owners and operators whose States adopt the provisions of Subparts Cc and WWW.

Example submittals include a Design Capacity Report, an Annual Emission Rate Report, and a Collection and Control System Design Plan. The owner or operator would submit a Design Capacity Report within 90 days after the effective date of EPA's approval of the State plan. If the design capacity is greater than or equal to 2.5 million Mg and 2.5 million m^3, the first Emission Rate Report would be submitted at the same time. The MSW landfill owner or operator would then submit a collection and control system design plan prepared by a professional engineer within 1 year after the date of the first Emission Rate Report that shows that the landfill's NMOC emission rate equals or exceeds 50 Mg/yr. Within 30 months after a landfill's NMOC emission rate report shows NMOC emissions to be equal to or greater than 50 Mg/yr, MSW landfill owners and operators would install and start up a gas collection and control system at a landfill. The landfill owner or operator would conduct an initial performance test on the control system to document compliance within 180 days after control system startup.

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A brief discussion and flow chart timeline describing the responsibilities of landfill owners or operators is provided in Appendix B. The details regarding the owner or operator's responsibilities and the schedule for installing controls are discussed in Section 2 of MSW Landfills, Volume 1.

Meeting Additional Emission Guideline Requirements. Owners and operators are responsible for meeting other Emission Guidelines requirements, including an initial performance test and report to demonstrate compliance. They will also report ongoing monitoring results and keep required records to demonstrate compliance.

Related Programs. Owners and operators must apply for a Title V operating permit within a year of becoming subject to a Title V program. The authority for requiring Title V permits for existing MSW landfills is found in Section 502(a) of the CAA and is codified in 40 CFR Parts 70 and 71. Section 502(a) specifies that major sources and sources (including area sources) subject to standards or regulations under Sections 111 or 112 of the CAA (such as the Emission Guidelines and NSPS) are required to obtain Title V operating permits.

MSW landfills that are subject to a Title V permitting program under parts 70 or 71 are required to submit Title V permit application within 12 months after first becoming subject to Title V. If more than one requirement causes a landfill to become subject to Title V permitting, the 12-month time frame for submitting a Title V application will be triggered by the requirement that first causes the landfill to be subject to Title V. MSW landfills may, for example, be subject to Title V permitting as a result of being a major source under one or more of three major source definitions in Title V: (1) Section 112, (2) Section 302, or (3) Part D of Title I of the CAA. MSW landfills could also be subject to Title V permitting as a result of being subject to the Emission Guidelines.

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The Emission Guidelines specify that landfills with design capacities greater than or equal to 2.5 million Mg and 2.5 million m^3 are subject to Title V permitting requirements. The guidelines also state that landfills smaller than 2.5 million Mg or 2.5 million m^3 are not subject to Title V unless they are a major source or are subject for some other reason (e.g., subject to another section 111 or 112 regulation). An existing MSW landfill with a design capacity equal to or greater than 2.5 million Mg and 2.5 million m^3 which is not already subject to Title V, becomes subject to Title V permitting 90 days after the effective date of EPA's approval of the relevant State plan. (This allows time for submission of the design capacity report to determine if the landfill meets or exceeds the design capacity cutoff.) Permit applications would generally be due within 1 year after this date, but States can establish earlier schedules, prior to the 12-month deadline, for the submittal of permit applications. The establishment of those earlier deadlines is consistent with Section 503(c) of the CAA. Owners and operators should contact the respective permitting authorities to determine when permit applications are due for their MSW landfills. White Paper Number 2 (see Appendix F) provides guidance on improving implementation of Title V operating permits programs.

Construction or modification of a MSW landfill may trigger NSR. The NSR program requires the preconstruction review of major new sources and major modifications. The review includes a control technology review and an analysis of the air quality impacts of the new or modified source. On a case-by-case basis, some sources with Pollution Control Projects (PCP) may be excluded from NSR. Landfills that apply controls to comply with the Emission Guidelines may contact their State to determine whether they quality for the PCP exclusion. NSR and the PCP exclusion are discussed in more detail in Appendix E.

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3.0 REQUIRED ELEMENTS OF AN ACCEPTABLE STATE PLAN

This document and Appendix J contain summaries of existing information on the required elements of a State plan. States may find this summary helpful in preparing Section 111(d) State plans, and EPA will use it in reviewing the plans. A Section 111(d) State plan for MSW landfills has ten essential elements:

1. Identification of enforceable State mechanisms selected by the State for implementing the Emission Guidelines,

2. A demonstration of the State's legal authority to carry out the Section 111(d) State plan as submitted,

3. An inventory of existing MSW landfills in the State affected by the Emission Guidelines. An existing landfill may be active (currently accepting waste or having additional capacity available for waste deposition) or closed (no longer accepting waste nor having available capacity for future waste deposition),

4. An inventory of emissions from existing MSW landfills in the State,

5. Emission standards for existing MSW landfills that are "no less stringent" than those in the Emission Guidelines[3],

6. A State process, as specified in § 60.33c(b) of Subpart Cc, for State review and approval of site-specific gas collection and control system design plans.

7. Compliance schedules extending no later than 30 months after the date the annual NMOC emission rate reaches or exceeds 50 Mg/yr[5],

8. Testing, monitoring, recordkeeping, and reporting requirements,

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[3]On a case-by-case basis, the State may provide for a less stringent standard or a longer compliance schedule if the State demonstrates to EPA that the criteria in § 60.24(f) of Subpart B are met, and the EPA approves the standard or schedule. See Section 3.11 for additional information.

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9. A record of public hearing(s) on the State plan, and

10. Provision for annual State progress reports to EPA on implementation of the State plan.

Table 3-1 summarizes these elements of the State plan for MSW landfills, provides citations from Subparts B and Cc, and identifies the sections of this chapter that discuss each element.

Some components of a Section 111(d) State plan may duplicate existing State requirements and therefore will not add additional requirements. For example, most States require public notice for rulemaking consistent with 40 CFR Part 60, Subpart B. Similarly, Section 112 and Title V of the CAA require various demonstrations of legal authority. If earlier demonstrations of legal authority by the State meet the requirements of 40 CFR Part 60, Subpart B, the State will simply need to include copies of such demonstrations in the State plan submittal. Appendix J, Key Elements of an Acceptable Section 111(d) State plan, provides a detailed list of requirements for demonstrating legal authority if this initial authority has not been previously demonstrated.

3.1 Criteria for an Adequate Enforceable Mechanism

Many States that have MSW landfills covered by the guidelines are developing Section 111(d) State plans that will use State rules as the legal instrument to enforce the Emission Guidelines. However, some States may use alternative mechanisms to implement the Emission Guidelines. An essential element of a Section 111(d) State plan requires the plan to include emission standards, which 40 CFR Part 60, Subpart B § 60.20(f) defines as "a legally enforceable regulation setting forth an allowable rate of emissions into the atmosphere, or prescribing equipment specifications for control of air pollution emissions." For Section 111(d) State plans, EPA interprets the term "regulation" in Section 60.22(f) to include, in addition to a uniform State requirement or State

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rule, other mechanisms that are legally enforceable under State law. For example, depending on the applicable State law, enforceable mechanisms that might be used as the vehicle for implementing the MSW landfills Emission Guidelines may include a regulatory or administrative order, a compliance order, or a State operating permit. A State may select other enforceable mechanisms provided that the State demonstrates that it has the underlying authority and demonstrates that the selected mechanism is State enforceable.

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Table 3-1. Summary of Requirements for Section 111(d) State Plans[a]

Required Item	Reference in 40 CFR Part 60, Subpart B or Cc	Section of this Document
Identify enforceable mechanisms selected by the State to implement the guidelines	60.24(a) of Subpart B	3.1
Show that State has legal authority to carry out plan	60.26(a) of Subpart B	3.2
An inventory of MSW landfills and an emissions inventory	60.25(a) and 60.25(c) of Subpart B	3.3 and 3.4
Allowable emission rates	60.24(b)(1), 60.24(c), and 60.24(f) of Subpart B and 60.33c of Subpart Cc	3.5
Process for State review and approval of site-specific gas collection and control system design plans	60.33c(b) of Subpart Cc	3.6
Compliance schedules and legally enforceable increments of progress for MSW landfills to achieve compliance	60.24(a) and 60.24(e)(1) of Subpart B and 60.36(c) of Subpart Cc	3.7
Test methods and procedures used for determining compliance with the emissions standards	60.24(b)(2) of Subpart B and 60.34c of Subpart Cc	3.8
Provisions for monitoring a MSW landfill's compliance status, including: 1. Legally enforceable procedures for requiring the maintenance of records and periodic reporting to the State for the determination of compliance, 2. Periodic inspections and testing, and 3. Specific testing, monitoring, recordkeeping, and reporting requirements specified by Subpart Cc.	60.25(b) of Subpart B and 60.34c and 60.35c of Subpart Cc	3.8
Certification that a public hearing was held before the State plan was adopted and list of the attendees at the hearing and their affiliation, with a summary of their presentations and handouts	60.23(f)(1) and (2) of Subpart B	3.9
State progress reports	60.25(f) of Subpart B	3.10

[a]See text of Section 3 and Appendix J of this document for additional discussion of the
required elements of a State plan.

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All applicable requirements on MSW landfills and terms and conditions needed to implement and enforce these applicable requirements must remain continually in force throughout the time the landfill is subject to the State plan even if the enforceable mechanism, e.g., permit, expires.

If the State relies on a mechanism that is not a State rule to implement the Emission Guidelines, such as a regulatory order, the State must document in the State plan how the selected mechanism meets the emission standards for the designated pollutant (MSW landfill emissions, measured as NMOC) and attach a copy of the enforceable mechanism. A State operating permit can be used as the enforceable mechanism in a State plan, as long as the requirements contained in the permit are binding on the owner or operator as a matter of State law. When EPA approves the State plan, the requirements in the permit would then become federally enforceable. If a State rule is used, only citations of the overall rule and copies of the sections pertaining to MSW landfills are required. The State does not have to submit a copy of the entire rule. The State may submit a Section 111(d) State plan that relies on the requirements in the SIP to meet the Section 111(d) emission standard for NMOC emissions, where they are found to be adequate. If the State relies on existing or revised SIP emission limits to implement the Section 111(d) MSW landfill emission standards, the State must submit the Section 111(d) State plan citing the SIP and the date when it became effective and document how the SIP assures that the requirements of Section 111(d) are met. In all cases the mechanism(s) must be in place and effective by the date the State plan is submitted.

The EPA emphasizes that the determination of whether a particular mechanism may be used to enforce the Emission Guidelines in a particular State is a question of State law; the State law must give the State the requisite authority to enforce the emission limit using the legal mechanism identified by the State. Thus, a mechanism (for example, a regulatory order) that is

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approvable for one State under its State law might not be approvable if selected by another State under the law in that State.

After a State incorporates a State-enforceable requirement into the State plan, and the plan has been approved by EPA and is effective, the State requirement, if it is to be codified, becomes federally enforceable.

3.2 Demonstration of Legal Authority

The Section 111(d) State plan must demonstrate that the State has the legal authority under current State law to adopt and implement the emission standards and compliance schedules in the Section 111(d) State plan. The legal authority must support the legal mechanism selected by the State to implement the emission limits for MSW landfills. The legal authority must be available to the State at the time the State submits its Section 111(d) State plan to EPA [40 CFR Part 60, Subpart B, § 60.26(c)]. States must submit with the Section 111(d) State plan copies of the laws or regulations that demonstrate the State's legal authority, unless: (1) such laws or regulations were approved when previously submitted under either 40 CFR Part 60, Subpart B or other sections of the CAA, and (2) the State can demonstrate that such previously submitted laws or regulations are applicable to the pollutants[4] for which the plan is submitted [§ 60.26(b)].

A State may use existing demonstrations of legal authority to meet the requirements of Subpart B. The legislative structure of the State will determine which existing authorities the State can use to implement the Section 111(d) requirements. This implementation guidance provides the minimum requirements of Section 111(d) pertaining to MSW landfills, and

[4]For MSW landfills, the regulated pollutant is MSW landfill emissions, measured as NMOC.

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leaves the State flexibility to implement the requirements as long as provisions are enforceable under State law.

A State must include in its demonstration of existing legal authority a showing that it has the authority to:

1. Adopt emission standards and enforceable conditions (see Section 3.1) as well as compliance schedules applicable to the designated facilities and pollutant for which the Section 111(d) State plan is submitted;

2. Enforce the relevant laws, regulations, standards and compliance schedules referenced in Section 111(d);

3. Obtain information necessary to determine compliance;

4. Require recordkeeping, make inspections, and conduct tests;

5. Require the use of monitors and require emission reports of MSW landfill owners or operators; and

6. Make emission data available to the public.

Demonstrations of legal authority can take several forms. States that use a legal mechanism other than rulemaking to implement the Emission Guidelines should submit legal documentation, preferably an opinion by the State's Attorney General that the State possesses the adequate authority to implement and enforce the Section 111(d) State plan using that legal mechanism.

A State governmental agency other than the State air pollution control agency may be assigned responsibility for carrying out a portion of a Section 111(d) State plan, provided that the State demonstrates that the State governmental agency has adequate authority [§ 60.26(e) of Subpart B]. The State may authorize a local agency to implement a portion of the Section 111(d)

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State plan provided that the local agency demonstrates that it has adequate legal authority to implement that portion of the plan and the State is not relieved of responsibility [§ 60.26(e)].

3.3 Source Inventory

A complete source inventory of existing MSW landfills in the State that are regulated by the Emission Guidelines must be submitted as part of the Section 111(d) State plan [§ 60.25(a) of Subpart B]. An "existing" landfill is a landfill that commenced construction, modification, or reconstruction before May 30, 1991 and that has accepted waste at any time since November 8, 1987 or has additional capacity for future waste deposition. (Landfills that commenced construction, modification, or reconstruction since then are considered "new" and are subject to the NSPS instead of the Emission Guidelines.) "Municipal Solid Waste Landfill New Source Performance Standards and Emission Guidelines — Questions and Answers", posted on the TTN Web, contains additional information on applicability.

The source inventory should include existing MSW landfills with design capacities both above and below the 2.5 million Mg/yr or 2.5 million m^3/yr design capacity cutoff. Landfills below this capacity are not required to apply controls under the Emission Guidelines, but they are required to submit a design capacity report and supporting information to show that they are below the cutoff.

State air agencies may be able to obtain information on these landfills from their State solid waste agency counterparts. The 1984 Hazardous and Solid Waste Amendments to RCRA required States to establish a permit program or other system of prior approval to ensure that facilities receiving household hazardous waste or small quantity generator hazardous waste are in compliance with 40 CFR Part 257. This permit program was to be established

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by November 8, 1987. This permit program is a resource for States to use in locating landfills that are subject to the Emission Guidelines. Another source of information may be county and municipal governments.

One special consideration for identifying all of the existing MSW landfills is that some may be closed. Identifying and locating owners or operators of closed MSW landfills may be difficult; however, only landfills that have accepted MSW since November 8, 1987 or have additional capacity for future waste deposition are subject to the Emission Guidelines. Therefore, these landfills may have RCRA permits. Once a closed MSW landfill has been identified, the State will need to identify and locate the owner, operator, or responsible party.

3.4 Emission Inventory

An emission inventory based on the MSW landfills source inventory required by § 60.25(a) of Subpart B, must be included in the Section 111(d) State plan. The inventory must present estimates of the pollutant regulated by the Emission Guidelines, which is NMOC. Emission estimates should be reported in Mg/yr NMOC. The emissions inventory must be made available to the general public and presented with the applicable emission standards.

In view of the limited requirements on landfills below the 2.5 million Mg or 2.5 million m^3 cutoff, the EPA will allow States, in limited circumstances, to submit emission inventories as part of State plans without developing emissions data where the development of such data would be unreasonable or impractical. For example, it may be unreasonable or impractical for an MSW landfill below the size cutoff to estimate NMOC emissions if the landfill is closed and there are no records of waste in place. A memo entitled, "Emission Inventory for MSWLF State plans" is posted on the TTN Web (http://www.epa.gov/ttn/oarpg/t3pgm.html) and discusses this policy in detail.

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The memo is also included in this document as Appendix K. The allowance for exclusion of NMOC emission from certain landfills below 2.5 million Mg or 2.5 million m^3 does not affect the requirement for States to submit an inventory of existing MSW landfills with the State plans. The memo provides details on situations where obtaining emissions data may be unreasonable or impractical.

3.4.1 Emission Estimation Procedures

Two different methods can be used to estimate emissions from landfills. To estimate emissions for State inventories, the procedures in AP-42, "Compilation of Air Pollutant Emission Factors"[5] are the preferred method unless site-specific data is available. To determine applicability of or compliance with the MSW Emission Guidelines, the owner or operator must use the tiered emission estimation procedure in § 60.754 of Subpart WWW or another method if it has been approved by the EPA Administrator as provided in § 60.752(b)(2)(i)(B).

The equations in Subpart WWW are the same as the AP-42 equations. However, the values of the variables used in the equations are different for the two methods. The variable values specified in Subpart WWW are purposefully conservative to protect human health, to encompass a wide range of landfills, and to encourage the use of site-specific data. The variable values in AP-42 would more accurately reflect current conditions at a landfill and thus yield more accurate emissions for the purposes of the emission inventory.

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[5]AP-42 is the common name for the EPA document entitled "Compilation of Air Pollutant Emission Factors, Volume I: Stationary Point and Area Sources," Fifth Edition, January 1995, available from GPO or from the CHIEF TTN Website (http://www.epa.gov/ttn/chief). The landfill emission factors section was updated in November 1998.

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AP-42 Procedures. Emission estimation procedures for MSW landfills from AP-42, the "Compilation of Air Pollutant Emission Factors" are presented in Appendix D. These procedures, from Section 2.4, Municipal Solid Waste Landfills have been updated to reflect changes to the Section which were published in September 1997. AP-42 includes equations that estimate emissions as a function of three variables: the NMOC concentration in landfill gas (C_{NMOC}); the methane generation rate constant (k); and the refuse methane generation potential (L_o). Although site-specific testing is not required for developing the emission inventory, it is preferable to use site-specific measured data for the variables when it is available because it would better reflect the conditions at a particular landfill. If site-specific data is not available, default values for these variables, which are found in AP-42, can be used. The default values for these variables are designed to provide typical, or average, estimates of landfill emissions and are appropriate for use in State emission inventories. However, it should be stressed that the AP-42 default values should NOT be used to determine applicability of or compliance with the MSW landfills Emission Guidelines.

Subpart WWW Procedures. Under the Emission Guidelines, the owner or operator must use the tiered emission estimation procedure in § 60.754 of Subpart WWW to determine whether the annual emission rate equals or exceeds the 50 Mg/yr NMOC cutoff and whether the landfill must be controlled. The owner or operator must use the equations and Tier 1 default values provided in the NSPS and the Emission Guidelines to determine NMOC emissions or develop site-specific values using the Tier 2 or 3 procedures in § 60.754. If a MSW landfill equals or exceeds the 50 Mg/yr cutoff using Tier 1 procedures, they can apply controls or collect site-specific data and refine the emission estimates using Tier 2 or 3 procedures.

Computer Model for Calculating Emissions. A computer model is available to calculate landfill emissions. It uses equations that are the same as

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those in the Emission Guidelines and AP-42. The model contains default values from AP-42 that can be used to estimate emissions for inventories and permitting purposes. It also contains default values from the NSPS and Emission Guidelines that can be used to determine applicability of the Emission Guidelines. Appendix D provides information on the computer model and how to obtain it.

3.4.2 Annual Emission Reporting

In addition to the initial emission inventory, States must submit annual progress reports on implementation of the Emission Guidelines. These annual progress reports, described in Section 3.10, must include updated NMOC emission rate data (per § 60.25(a), (e), and (f) of Subpart B). To avoid duplication, these updated emission estimates must be included in the annual State Implementation Plan (SIP) reports required by § 51.321. These annual reports must update the emission inventory for those sources whose emissions have changed more than 5 percent from the most recently submitted emission data (as specified in §§ 51.321 through 51.323). If emissions from an MSW landfill have not changed more than 5 percent, then the State must update the year of record of the previously reported emission data. This emission data must be reported to the Aerometric Information Retrieval System Facility Subsystem (AFS) as specified in 40 CFR Part 60, Appendix D. AFS is a repository of emission information for stationary sources that has now superseded the National Emissions Data System (NEDS) described in 40 CFR Part 60, Appendix D. A discussion of other types of information that must be included in the annual progress reports is contained in Section 3.10.

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3.5 Emission Standards

3.5.1 Allowable Emission Rates and Control Requirements

The State plan must include emission standards that prescribe allowable emission rates for existing MSW landfills. Subpart B [§ 60.24(c)] specifies that emission standards should be "no less stringent than" the Subpart Cc Emission Guidelines, except as provided under § 60.24(f), discussed in Section 3.11.

The Emission Guidelines require control of emissions from existing MSW landfills (that is, MSW landfills that commenced construction, modification, or reconstruction before May 30, 1991 and have not been modified or reconstructed since May 30, 1991 and have accepted waste at any time since November 8, 1987 or have additional capacity for future waste deposition) that:

- have a design capacity greater than or equal to 2.5 million Mg and 2.5 million m^3; and
- have an NMOC emission rate of 50 Mg/year or more.

The level of control required by the Emission Guidelines for these landfills includes a collection and control system. The collection system must meet certain design criteria. The control system must either:

- achieve 98 percent NMOC reduction (by weight, determined by the performance test procedures specified in the rule); or
- be an enclosed combustion device achieving an outlet NMOC concentration of less than 20 ppmv (as hexane, dry basis at 3 percent oxygen); or
- be an open flare meeting the design and operating specifications of § 60.18 of 40 CFR Part 60 Subpart A.

State plans must generally require this same level of control.

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Section 60.24(b)(1) of Subpart B specifies that Section 111(d) State plans should include emission rates, or if these are impractical, State plans may contain equipment specifications. The Emission Guidelines for existing MSW landfills provide a combination of emission limits and design criteria. Emission limits (for example, 98 percent reduction) are practical for most control devices and are included in the Emission Guidelines. However, it is not practical to establish numerical limits or measure performance for landfill gas collection systems and flares, so design criteria are provided for gas collection systems and flares. Thus, a State plan that allows design criteria for gas collection systems and flares similar to the Emission Guidelines will meet the requirements of § 60.24(b)(1).

Section 60.24(b)(1) further specifies that if emission standards prescribing equipment specifications are established, the State plan must set forth to the degree possible the emission reductions achievable by implementation of such specifications. The State plan may permit compliance by the use of equipment determined by the State to be equivalent to that prescribed. The Subpart Cc Emission Guidelines contain design criteria rather than prescriptive equipment specifications. They also provide for submission of alternative collection system design plans for systems that do not meet the design criteria for active collection systems and they provide for approval of alternative collection systems and control devices. Therefore, State plans that allow alternative equipment that meet the design criteria for active and passive collection systems specified in the Emission Guidelines will fulfill the intent of § 60.24(b)(1). Section 60.24(f) allows the State in certain case-by-case situations to provide for a less stringent standard (see Section 3.11).

3.6 Process for Review of Design Plans

The Emissions Guidelines [§ 60.33c(b) of Subpart Cc] require State plans to include a process for State review and approval of site-specific design

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plans for required gas collection and control systems. If MSW landfill emissions equal or exceed 50 Mg/yr, the landfill owner or operator must submit a site-specific design plan within 1 year. The plan must be prepared by a professional engineer and must meet the design criteria in § 60.752(b)(2)(ii) of Subpart WWW. The plan must also conform to design specifications for active collection systems in § 60.759 of Subpart WWW or include a demonstration of the sufficiency of alternative provisions [see § 60.752(b)(2) of Subpart WWW]. Further information about the design criteria and examples of alternative designs are contained in "Municipal Solid Waste Landfills, Volume 1: Summary of the Requirements for the New Source Performance Standards and Emission Guidelines for Municipal Solid Waste Landfills" (EPA-453/R-96-004).

The process that the State will use to review the gas collection and control system design plan must be described in the State plan. The description of the process in the State plan could include information on review responsibilities, schedules, and notification procedures such as communication of reasons for disapproval. States are encouraged to review the design plans expeditiously so that there is sufficient time after approval for the landfills to install controls prior to the compliance date.

3.7 Compliance Schedules

To comply with the emission limits contained in the Section 111(d) State plan, existing MSW landfills may need to install emission controls. The State plan must contain schedules for controlling emissions from these landfills. The elements included in a compliance schedule are listed in Table 3-2.

3.7.1 Compliance Times

The compliance schedules for MSW landfills are developed by the State air pollution control agency considering input from the public and input

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from the MSW landfills owners and operators. The Emission Guidelines place certain restrictions on these schedules.

The Emission Guidelines [§ 60.36(c)] specify that owners or operators must accomplish specific tasks within 30 months after the Annual Emission Rate Report first shows that emissions equal or exceed 50 Mg/yr of NMOC. These tasks include planning, awarding of contracts, installing MSW landfill air emission collection and control equipment capable of meeting the Emission Guidelines, and complying with the Emission Guidelines.

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Table 3-2. Schedule for MSW Landfill Compliance with the Emission Guidelines

State plan submittal to EPA	December 12, 1996
EPA approval of State plan	April 12, 1997
Submit Design Capacity Report. Also submit first Annual Emission Rate Report if design capacity is greater than or equal to 2.5 million Mg and 2.5 million m^3	A set date in State plan. For consistency with Subparts Cc and WWW, 90 days after the effective date of the EPA's approval of the State plan.
If not in compliance by this date, need enforceable increments of progress for MSW landfills	April 12, 1998
Submit a final control plan. (The final control plan may be interpreted to be the same as the site-specific collection and control system design plan required by the Emission Guidelines.)	A set date in State plan. For consistency with Subparts Cc and WWW, the collection and control system design plan must be submitted within 1 year after the date of the landfill's submittal of the first Annual Emission Rate Report that shows that NMOC emissions first equal or exceed 50 Mg/yr of NMOC
Award contracts for gas collection and control system	A set date in State plan
Initiate construction or installation of gas collection and control system	A set date in State plan
Complete construction and installation of gas collection and control system	A set date in State plan. For consistency with Subpart Cc, installation of a collection and control system capable of achieving compliance with the Emission Guidelines must be accomplished within 30 months after a landfill's annual emission rate report first shows that emissions equal or exceed 50 Mg/yr of NMOC.[a]
Final compliance date for MSW landfill	A set date in State plan. For consistency with Subpart Cc, the collection and control system must be operating in compliance with the Emission Guidelines within 30 months after a landfill's annual emission rate report first shows that emissions equal or exceed 50 Mg/yr of NMOC.[a]
Initial performance test for MSW landfill control system	As scheduled in State plan and for consistency with the NSPS general provisions, no later than 180 days after installation of the collection and control system
Reports of periodic monitoring results	Annually after compliance date

[a]On a case-by-case basis, the State may provide for a longer compliance schedule only if the State demonstrates in the Section 111(d) State plan that the criteria in § 60.24(f) of Subpart B are met, and the EPA approves the compliance schedule.

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States can require landfills to comply sooner than the dates specified in the Emission Guidelines. In fact, § 60.24(c) specifies that State plans must require compliance as expeditiously as practicable, but no later than the compliance times suggested in the Emission Guidelines. The EPA believes that many landfills will need the compliance time specified in the Emission Guidelines to design and install collection and control systems. A shorter compliance time may be specified if a State determines more rapid compliance is reasonable for certain landfills, or groups of landfills. States may provide for a longer compliance schedule on a case-by-case basis (see Section 3.11.3).

3.7.2 Increments of Progress

Compliance schedules for MSW landfills with compliance dates that extend more than 1 year beyond the date of State plan approval must include legally enforceable increments of progress towards compliance as required by § 60.24(e) of Subpart B. Because the Emission Guidelines allow 30 months after the first Annual Emission Rate Report shows NMOC emissions equal or exceed 50 Mg/yr for compliance, State plans that are based on the Emission Guidelines will need to include increments of progress. Each increment of progress in § 60.21(h) of Subpart B must have an enforceable compliance date in the Section 111(d) State plan that may include such additional increments of progress as may be necessary for close and effective supervision of progress toward final compliance.

The minimum five increments of progress required by § 60.21(h) of Subpart B for each MSW landfill within a State are as follows:

1. Submitting a final control plan. The control plan may be interpreted to be the same as the site-specific collection and control system design plan required by the Emission Guidelines (see Section 3.6). If the State plan uses the schedule in Subparts Cc and WWW, an Annual Emission Rate Report is due 90 days after the effective date of EPA's

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approval of the State plan and the control plan is due within 1 year of the date of the first Annual Emission Report showing that the NMOC emission rate is 50 Mg/yr or greater. In this example, the date of the increment of progress is tied to the date of the annual emission report;

2. Awarding contracts for construction of collection and control systems or orders for purchase of components;

3. Initiating on-site construction or installation of the collection and control systems;

4. Completing on-site construction or installation of collection and control systems; and

5. Final compliance.

All five increments of progress for MSW landfills can be fixed calendar dates or floating dates (such as the example shown for increment No. 1). The floating dates can be tied to the effective date of EPA's approval of the State plan or the date the Annual Emission Rate Report shows that NMOC emissions equal or exceed 50 Mg/yr.

As previously discussed, Subpart Cc requires the fourth increment, the installation of collection and control systems capable of meeting the Emission Guidelines to be completed within 30 months after the date the first Annual NMOC Emission Rate Report shows NMOC emissions equal or exceed 50 Mg/yr. The landfill must also be in compliance (increment 5) at this time.

EPA strongly recommends that a date for the initial official performance test of the control device be included in the Section 111(d) State plan. Following installation of the collection and control system, a performance test must be completed within 180 days. In addition, the Section 111 general provisions (40 CFR 60 Subpart A) require a 30-day notice before a performance test. The report of the performance test results must be submitted within 60 days after the test is conducted. These test results are for demonstrating whether or

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not the MSW landfill is in compliance with the emission standards after the controls are installed. This performance test timing is consistent with other EPA air regulations for existing sources, such as the NESHAP general provisions (40 CFR 63 Subpart A). Note that the "initial" official performance test denoted above does not mean the first ever test but rather the first official test for determining compliance; that is, EPA would expect MSW landfill owners and operators to conduct preliminary tests for their own use (similar to other industry owners and operators who typically conduct preliminary tests to tune equipment) at least two to three months before the scheduled initial official performance test. Preliminary tests enable MSW landfill owners to make any necessary "shakedown" adjustments and retest before the initial official performance test. EPA does not have to be notified of the unofficial tests nor do they have to be on site for the unofficial tests.

The Section 111(d) State plan may include one set of increments with compliance dates applicable to all MSW landfills within the State or it may vary the compliance dates from one MSW landfill to another to address specific issues relevant to individual landfills. In all cases, the enforceable increments of progress must be arranged chronologically, and the compliance dates must be set to ensure full compliance with the applicable requirements as expeditiously as practicable [§ 60.24(c) of Subpart B]. For example, a State plan that requires a MSW landfill to submit a final control plan no later than 2 years after the effective date of EPA's approval of the State plan will likely be disapproved because the increment is too close to the end of the compliance window, does not appear to ensure expeditious progress, and thus jeopardizes timely compliance. Although there may be MSW landfill-specific reasons for other schedules, EPA would expect the control plan to be submitted within 15 months of the effective date of EPA's approval of the State plan (90 days for the first Annual Emission Rate Report plus 1 year for the control plan if NMOC emissions equal or exceed 50 Mg/yr). EPA would expect contracts to be awarded within about 20 months for landfills that must comply within

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33 months (90 days for the Annual Emission Rate Report plus 30 months for compliance, if NMOC emissions equal or exceed 50 Mg/yr).

3.8 Testing, Monitoring, Recordkeeping, and Reporting

The Section 111(d) State plan must include requirements for the testing, monitoring, recordkeeping, and reporting provisions from the Emission Guidelines.

3.8.1 Requirements of the Emission Guidelines

The testing and monitoring provisions are specified in the MSW landfills Emission Guidelines (§ 60.34c of Subpart Cc). They apply to landfills with design capacities greater than or equal to 2.5 million Mg and 2.5 million m^3, and include, in particular:

- calculation of the MSW landfill NMOC emission rate using the procedures in § 60.754 of Subpart WWW to determine whether the annual emission rate equals or exceeds the emission rate cutoff of 50 Mg/yr;
- the operational standards in § 60.753 of Subpart WWW;
- the compliance provisions in § 60.755 of Subpart WWW; and
- the monitoring provisions in § 60.756 of Subpart WWW.

For landfills that emit 50 Mg/yr or more of NMOC, a performance test is required to demonstrate that the control device achieves the specified emission limits. The operational standards, compliance, and monitoring provisions require periodic monitoring of surface methane concentration, wellhead temperature, and nitrogen or oxygen level. Details on the compliance and monitoring requirements are contained in Subparts Cc and WWW (Appendix I). The document, "Municipal Solid Waste Landfills, Volume 1: Summary of the Requirements for the New Source Performance Standards and Emission

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Guidelines for Municipal Solid Waste Landfills" (EPA-453/R-96-004) further explains these requirements.

The recordkeeping and reporting provisions are specified in the MSW landfills Emission Guidelines (§ 60.25c of Subpart Cc). For approval, the State plan must include:

- the reporting provisions in § 60.757 of Subpart WWW; and
- the recordkeeping provisions in § 60.758 of Subpart WWW.

The MSW landfill owner or operator must maintain records of the design capacity, performance test, and monitoring data for five years. Certain records on collection and control system design and the initial performance test must be kept for the life of the control equipment. The MSW landfill owner or operator must submit an initial design capacity report. If the design capacity is greater than or equal to 2.5 million Mg and 2.5 million m^3, the landfill owner or operator must submit Annual NMOC Emission Rate Reports.[6] Both the design capacity report and the first Annual Emission Rate Report are due within 90 days of the effective date of EPA's approval of the State plan. If NMOC emissions are 50 Mg/yr or more, a collection and control system design plan must be submitted. An initial test report and annual report of testing and monitoring results are required after the collection and control system is installed. Closure reports are required when the landfill closes. These recordkeeping and reporting requirements are described in more detail in the "Municipal Solid Waste Landfills, Volume 1: Summary of the Requirements for the New Source Performance Standards and Emission Guidelines for Municipal Solid Waste

[6]If estimated NMOC emissions are less than 50 Mg/yr for each of the next 5 consecutive years, the owner or operator may elect to submit a 5-year emission rate report instead of Annual Emission Rate Reports per § 60.757(b) of Subpart WWW.

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Landfills" (EPA-453/R-96-004). The regulatory text of these requirements are contained in Subpart Cc and Subpart WWW (Appendix I).

A State plan that incorporates the testing, monitoring, reporting, and recordkeeping requirements specified in Subpart Cc will be consistent with the State plan requirements in Subpart B. Under § 60.25(b) of Subpart B, State plan requirements for monitoring compliance must include the following:

- legally enforceable requirements for owners and operators to keep records of the nature and amount of emissions and any other information that may be necessary to enable the State to judge compliance. This information must be reported periodically to the State (Subpart Cc requires such records and reports);

- legally enforceable requirements that provide for periodic inspection and testing (Subpart Cc requires periodic inspection and monitoring); and

- provisions for making reports of emission data, correlated with the emission standards that apply, available to the general public. This would include the Annual Emission Rate Reports, in Mg/yr, that must be submitted for uncontrolled landfills. The reported annual emission rate would be compared to the 50 Mg/yr threshold to determine whether controls must be installed.[7]

3.8.2 Provisions for Requirements Other Than Those in the Emission Guidelines

Requirements in State plans for compliance demonstration, monitoring, recordkeeping, and reporting must be at least as stringent as the

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[7]For landfills that require control, the emission standards are expressed in terms of design criteria and operational requirements for the gas collection system and a percent reduction for the control device, instead of emission rate limits. Therefore, the Subpart B requirement to "correlate" the annual emission inventory information (in Mg/yr, discussed in Section 3.4) with the landfill emission standards is not relevant for controlled landfills. The performance testing, monitoring, and recordkeeping procedures in the Emission Guidelines are appropriate for determining compliance with the percent reduction limit and collection system requirements.

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Emission Guidelines. In developing the Emission Guidelines, EPA sought to develop a system that would provide all the information necessary to determine compliance, yet would not be burdensome to landfills or generate unnecessary paperwork. However, a State can choose to require more frequent reports or additional information. Test methods and procedures for determining compliance that are different than those specified in 40 CFR Part 60, Appendix A may be specified in the plan as allowed in § 60.24(b) of Subpart B. These alternatives must be shown to be "equivalent methods," or acceptable "alternative methods" as defined in § 60.2 of Subpart A.

3.9 Public Hearings

Public participation, under the provisions of the CAA, is an important right and responsibility of citizens in the State process of developing, adopting, and implementing Section 111(d) State plans. As with State Implementation Plans (SIPs) for criteria pollutants, EPA regulations in 40 CFR Part 60, Subpart B, make it clear that citizen input on Section 111(d) State plans is encouraged in order to help define appropriate emission standards and compliance schedules. Under Subpart B, some minimum public participation requirements are as follows:

1. Reasonable notice of opportunity for one or more public hearing(s) at least 30 days before the hearing.

2. One or more public hearing(s) on the Section 111(d) State plan (or revision) conducted at location(s) within the State, if requested.

3. Date, time, and place of hearing(s) prominently advertised in each region affected.

4. Availability of draft Section 111(d) State plan for public inspection in at least one location in each region to which it will apply.

5. Notice of hearing provided to:

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a. EPA Regional Administrator
b. Local affected agencies
c. Other States affected

6. Certification that the public hearing, if held, was conducted in accordance with Subpart B and State procedures.

7. Hearing records must be retained for a minimum of two years. These records must include the list of commenters, their affiliation, summary of each presentation and/or comments submitted, and the State's responses to those comments.

3.10 State Progress Reports to EPA

States are required under § 60.25(e) and (f) to submit to EPA annual reports on the progress of plan enforcement. These reports must be incorporated into the reports required by 40 CFR § 51.321. Inclusion in this § 51.321 report is intended to avoid duplicative reporting. The first progress report is due 1 year after plan approval or promulgation of a plan by EPA. Section 60.25(f) applies to all regulated sources; however, MSW landfills and emissions from MSW landfills are different from typical sources and emissions. The following list has been modified to reflect how the progress report items specifically apply to MSW landfills.

1. Enforcement actions. The State must report enforcement actions initiated against a MSW landfill during the reporting period. For example, the State must report any enforcement actions taken in response to a compliance schedule or emission limit violation.

2. Increments of progress. The State must report achievement of increments of progress made by landfills such as submittal of a final control plan (design plan) or initiation of on-site construction of the collection and control system.

3. Identification of MSW landfills that have closed and ceased to operate a collection and control system. Landfills that have ceased to accept MSW will continue to emit NMOC. Emission Guidelines require the control system to be operated even after the landfill has closed. Control systems may be

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removed after: a closure report has been submitted, the collection and control system has been operated a minimum of 15 years, and NMOC emissions are less than 50 Mg/yr. The State progress report should identify closed MSW landfills that have met these criteria and have ceased to operate their control systems.

4. Emission inventory for MSW landfills that were not in operation or were not identified at the time of plan development. Except for MSW landfills that were not identified in the State plan and were later determined to be affected by the Emission Guidelines, most existing MSW landfills would have been in operation at the time of plan development.

5. Updated information or emission data. The State must report updated landfill information such as any increases in design capacity and newly identified existing MSW landfills that were not included in the State plan. In addition, emissions data must be reported for existing MSW landfills, if the annual emission rate from the landfill has changed by more than 5 percent from the previous year, as discussed in Section 3.4.2. Emissions must also be reported if the annual emission rate report submitted by a MSW landfill shows that emissions have increased to 50 Mg/yr or more, such that the landfill now requires control.

6. Test reports and concurrent data. Subpart B requires that the initial performance test and concurrent process data be submitted with an annual report. However, since MSW landfill emissions are not generated by a manufacturing process, concurrent process data are not applicable; therefore, control device operating conditions should be reported with the performance test.

States may want to include additional information on periodic inspection and testing activities, emission and parameter exceedances, QA/QC, outreach activities, Title V or other permit condition compliance status, and compliance assistance activities. Some States and EPA regional offices have developed more specific or tailored reporting and recordkeeping procedures via Memoranda of Agreements, Program Specific Guidance for Section 105 Grants, and the Timely and Appropriateness Guidance. For example, some EPA offices

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prefer that the States retain the performance test reports until EPA requests review as part of a compliance determination or other action. The State and EPA will continue to have discretion on the format of the annual reports. States should work with their EPA regional office to determine appropriate reporting procedures for MSW landfill State plans.

3.11 State Flexibility

States may request an extension to the submittal date of their State plans or prescribe less stringent emission standards or longer compliance schedules than the Emission Guidelines. These case-by-case situations are described below.

3.11.1 Submittal of State Plan

Extension of Submittal of State Plan. Section 60.27(a) allows the EPA Administrator to extend the period of submission of plans or revised plans if the Administrator determines this to be necessary. If a State requests an extension, the State must demonstrate why such an extension is necessary.

3.11.2 Emission Standards

States may prescribe more stringent emission standards than the Emission Guidelines. States may prescribe less stringent emission standards only in unique situations. These case-by-case less stringent standards must be justified in the State plan and are subject to EPA approval. The provisions for allowing less stringent emission standards are provided in § 60.24(f) of Subpart B. This paragraph States that on a case-by-case basis for particular designated facilities, or classes of facilities, States may provide for the application of less stringent emission standards if certain criteria are met. These criteria are: (1) unreasonable cost of control resulting from age, location, or

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design, (2) physical impossibility of installing necessary control equipment, or (3) other factors specific to the MSW landfills that make application of a less stringent standard significantly more reasonable. The State is responsible for demonstrating the reason for any less stringent emission standards in its State plan.

The MSW landfill Emission Guidelines are a health-based Section 111(d) emission standard rather than a welfare-based standard as have been some previous Section 111(d) standards. As a health-based standard, greater consideration should be given to the health impacts of a less stringent emission standard during the development and evaluation of State standards for MSW landfills. Any less stringent emission standards should be carefully reviewed to assure that public health will not be adversely affected by MSW landfill emissions.

Public comments on the landfill NSPS and Emission Guidelines contain examples of situations where a State might want to consider a less stringent standard. These public comments are summarized in the background information document, "Air Emissions from Municipal Solid Waste Landfills — Background Information for Final Standards and Guidelines," (EPA-453/R-94-021). For example, an existing MSW landfill might already have installed a 95 percent efficient combustion control device prior to proposal of the Emission Guidelines. Engineering analysis might show that the existing control device cannot be upgraded to achieve 98 percent. The State might judge the costs of replacing the control device to be unreasonable in light of the 3 percent additional reduction that would be achieved. Another example that might warrant special consideration would be a landfill that closed on or after November 8, 1987, but before the May 1991 proposal date and that has no means of obtaining funding for installation of a control system. A third situation would be a landfill that accepts very little MSW and, because of the site-specific waste mixture and landfill design characteristics, experiences unreasonable costs

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relative to typical landfills. It should be stressed that the State must demonstrate that one or more of the criteria in § 60.24(f) are met and gain EPA approval in order to apply a less stringent standard.

3.11.3 Compliance Schedules

States have the option of allowing longer compliance times for particular MSW landfills or classes of MSW landfills on a case-by-case basis if certain criteria listed in § 60.24(f) are met. These criteria are the same as the criteria for a less stringent standard. These criteria allow States discretion in regulating individual MSW landfills. In the plan, the State must demonstrate that one of these criteria apply when a less stringent compliance schedule is specified for a MSW landfill or class of MSW landfills. EPA approval is required for less stringent control system schedules. As mentioned in Section 3.11.2, the MSW landfill Emission Guidelines are a health-based standard rather than a welfare-based standard. As a health-based standard, greater consideration should be given to the health impacts of any less stringent compliance schedule during the development and evaluation of State plans for MSW landfills.

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4.0 ANSWERS TO SOME GENERAL QUESTIONS ABOUT SECTION 111(D) STATE PLANS

This section contains answers to some frequently asked questions about development and submittal of Section 111(d) State plans. Additional questions and answers are contained in the document "Municipal Solid Waste Landfill New Source Performance Standards and Emission Guidelines—Questions and Answers," available on the TTN Web.

Question No. 1: If a State uses a SIP regulation as a basis for the enforceable mechanism in a State plan, does the State need to demonstrate legal authority?

> **Answer**: A State can select from a range of legal mechanisms as described in this summary document provided that the State can show it has adequate legal authority. A demonstration of legal authority is required in all cases except for State rules. If a SIP rule is used, citations, rather than copies of actual State legal authority are adequate. The State must show that the SIP requirements are adequate to meet the NMOC control requirements in the Emission Guidelines. [See § 60.26(b) of Subpart B].

Question No. 2: Do emission limits in the State plan need to be the <u>same</u> as the emission limits in the Subpart Cc Emission Guidelines?

> **Answer**: The emission limits in the State plan must generally be "no less stringent than" the Emission Guidelines, and EPA recommends that the limits be presented in the same regulatory format as the Emission Guidelines (for example, a percent reduction or concentration limits for the control device and design criteria for the gas collection system). If a regulatory format other than that used in the Emission Guidelines is used in a State plan, then the State must show how the format correlates to the format in the Emission Guidelines and demonstrate that it is no less stringent than the Emission Guidelines. In limited case-by-case situations, a State plan may request approval of less stringent emission limits. As described in Section 3.11.2, the State plan would need to

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demonstrate that the criteria in § 60.24(f) of Subpart B are met and EPA approval would be required.

Question No. 3: Does the State plan need to address each MSW landfill located in the State in the inventory?

Answer: Only existing MSW landfills that are subject to the Emission Guidelines must be addressed by the State plan and included in the inventory.

Question No. 4: Can a State plan identify only air pollution control equipment to be installed or must it include emission limits?

Answer: A State plan must include emission standards that are no less stringent than the Emission Guidelines, and they must apply them to each MSW landfill that meets the applicability criteria in the Emission Guidelines (see Section 3.5). The Emission Guidelines include percent reduction and outlet concentration standards for control devices. They also include design criteria for gas collection systems and flares, because it was not feasible to establish a numerical limit for these controls. Prescriptive equipment specifications are not required, and alone are unacceptable.

Question No. 5: Do reporting requirements in State plans apply to MSW landfill operators or just State agencies?

Answer: There are requirements that apply to MSW landfill operators and requirements that apply to State agencies. The State has responsibilities to develop the State plan and to report implementation progress to EPA. The MSW landfill owner or operator must show expeditious progress on achieving compliance by the dates set and then show continuing compliance with the standard by a performance test and periodic monitoring, recordkeeping, and reporting. Additional information on testing, monitoring, recordkeeping, and reporting requirements that apply to MSW landfill owners or operators are contained in MSW Landfills, Volume 1,

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(EPA-453/R-96-004), and in Subparts Cc and WWW (see Appendix I).

Question No. 6: Are fixed calendar dates required in increments of progress?

Answer: Either calendar dates or floating dates can be used for these increments of progress. There are five mandatory increments of compliance. These are: 1) submittal of a final control plan (collection and control system design plan); 2) awarding of contracts; 3) initiation of on-site construction of collection and control systems; 4) completion of on-site installation of collection and control systems; and 5) final compliance.

The State may submit a schedule that uses either all calendar dates or a mix of calendar and floating dates, or a State could submit a schedule with dates that all float. The dates may float from the effective date of EPA's approval of the State plan or the date the Annual Emission Rate Report shows that NMOC emissions equal or exceed 50 Mg/yr.

For the fourth and fifth increments of progress, completion of installation of collection and control systems and final compliance, respectively, if a floating date is used, that date must be no later than 30 months after the Annual Emission Rate Report first shows that the landfill has reached or exceeded an annual NMOC emission rate of 50 Mg/yr .

Question No. 7: Are public hearings required prior to submittal of a State plan?

Answer: Adequate opportunity for public hearings is required. The requirements described in Section 3.9 of this document apply and require the opportunity for public hearings on State plans prior to submittal. If after adequate notice, no one requests a hearing, the hearing is not required.

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Question No. 8: Can the States incorporate the MSW landfill progress reports into their 40 CFR Part 51, § 51.321 annual report for SIPs?

> **Answer**: Yes, EPA encourages States/EPA coordination to work with the EPA to minimize any potential duplication of reporting requirements and to tailor the reports to ensure the most productive compliance and enforcement activities.

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ENFORCEMENT CONFIDENTIAL * DO NOT DISTRIBUTE

Consolidated Regional Non-CERCLA– Enforcement Sensitive/Deliberative – Do Not Release (DATE – March 1, 2017)

CATEGORY 1 – Consent Decrees (CDs) -- lodged, but not yet entered

Region / Office	Case Name	Statute	Brief Description	Penalty	Expected Date	Other
HQ	U.S. v. Volkswagen et al. (second partial CD)	CAA	This the second of three partial CDs to resolve allegations that Volkswagen light-duty diesel vehicles since 2009 are equipped with defeat devices in the form of computer software designed to cheat on federal emissions tests. This second partial CD requires a multi-faceted recall for approximately 80,000 vehicles (including buyback and technical fixes). The settlement also secures $225 million additional funding for the Mitigation Trust (to be established under the first partial CD, already entered by the Court) which provides money directly to states, DC, Puerto Rico, and tribes to fund clean air projects of their choice. Lodged Dec. 20, 2016.	No penalty. Injunctive relief only.	Motion to enter March 2017	Timing may change depending on any necessary or appropriate coordination with private class actions seeking consumer relief for the owners of the vehicles subject to the recall under EPA's second partial consent decree.
HQ	U.S. v. Volkswagen et al. (third partial CD)	CAA	This the third of three partial CDs to resolve allegations that Volkswagen light-duty diesel vehicles since 2009 are equipped with defeat devices in the form of computer software designed to cheat on federal emissions tests. This third partial CD requires payment of a $1.45 billion civil penalty and various corporate measures and emissions testing to prevent future violations. Lodged Jan. 11, 2017.	$1.45 billion	Motion to enter March 2017	
HQ	U.S. v. Harley-Davidson et al.	CAA	This consent decree would resolve allegations that Harley-Davidson violated the Clean Air Act by manufacturing and selling about 340,000 devices, known as tuners, that allow users to change how a motorcycle's engine functions. Harley-Davidson also manufactured and sold more than 12,000 motorcycles that EPA alleges did not undergo proper EPA certification to ensure they meet federal clean air standards. The CD requires the companies to stop selling and to buy back and destroy illegal tuning devices, and to sell only tuning devices that don't increase air pollution. Harley-Davidson will also pay a $12 million civil penalty and spend $3 million on a project to mitigate air pollution through a project to replace conventional woodstoves with cleaner-burning appliances. Lodged Aug. 2016.	$12 million	Ready to move to enter immediately	The Government Accountability Office has informed DOJ that it will review the mitigation project required by this consent decree to determine its consistency with federal laws against agencies augmenting their own budgets. This GAO inquiry was requested by Congressman Chaffetz (R-UT).
HQ	U.S. v. Western Dubuque & NGL (WDB case)	CAA	Consent decree resolving violations of the renewable fuel standards regulations by Western Dubuque Biodiesel (WDB) was lodged on Oct. 4, 2016. DOJ later amended the consent decree to change to the definition of "complaint" in the	$6 million (WDB)		Related case: See entry in Category 4 with same case name, labelled "NGL case"

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			CD to include the complaint which was amended on Jan. 9. This very minor amendment will provide WDB with assurance that they have also resolved the claims in the amended complaint. Lodged Oct. 4, 2016. The motion to enter the CD was filed on Jan. 30, 2017.			below for information on co-defendant NGL. Motion to enter the CD has already been filed with the court.
HQ	U.S. v. Tauber Oil Company	CAA	A stipulation of settlement and order, lodged January 2017, resolves allegations that Tauber violated the Clean Air Act by manufacturing and selling a product for use as a fuel additive in violation of registration and compositional requirements. Tauber has stopped selling the unregistered fuel additive.	$700,000	Motion to enter March 2017	No injunctive relief.
R1	U.S. v. West Haven, CT	CWA	Motion to enter CD modification to add municipal separate storm sewer system (MS4) measures to existing SSO CD filed Jan. 26, 2017.	No penalty	CD modification entered by the court Feb. 3, 2017	
R1	U.S. v. Lynn Water & Sewer Commission	CWA	CD modification to address combined sewer overflows and municipal separate storm sewer system (MS4) violations. Lodged Jan. 19, 2017.	$125,000	Motion to enter March 2, 2017	
R1	U.S. v. EMD Millipore	CWA	EMD Millipore discharged inadequately treated industrial wastewater to the public sewer intermittently over the course of several years, interrupting operations at the downstream publicly owned treatment work (POTW), owned and managed by the Town of Jaffrey, NH. High strength waste from Millipore inhibited the POTW's biological treatment systems, including the aeration and nitrification processes, resulting in excessive amounts of ammonia nitrogen and oxygen-depleting discharges into the Contoocook River. Lodged Jan. 30, 2017.	$385,000	Motion to enter March 15, 2017	
R2	U.S. v. The Municipality of San Juan, the Puerto Rico Department of Natural and Environmental Resources, the Puerto Rico Department of Transportation and Public Works, the Puerto Rico Highway and	CWA	Consent decree with the Municipality of San Juan. Under the CD, San Juan is agreeing to make substantial upgrades to its storm sewer system throughout the city, including eliminating all illegal discharges of large volumes of untreated sewage. The estimated cost of these upgrades over the life of the agreement is $180-250 million. This CD, along with the next two listed below, are part of an initiative by EPA to improve public health and environmental conditions in the Martin Peña community, one of our "Making a Visible Difference" communities. Lodged on Oct. 26, 2015 and still awaiting entry by the court.	No penalty.	Unclear when court will enter CD	Motion to enter the CD has already been filed with the court.

	Transportation Authority, and the Commonwealth of Puerto Rico					
R2	Same case as above	CWA	Consent decree with Puerto Rico Dept. of Transportation and Public Works (DTPW) and P.R. Highways and Transportation Authority (HTA). DTPW and HTA will invest an estimated $44 million over the life of the agreement on various measures, including compliance with their municipal separate storm sewer systems (MS4) permit, development and implementation of a storm water management program, elimination of all illegal connections and discharges to their systems in priority areas of San Juan, development and implementation of a sludge disposal plan, and routine inspection, cleaning, and repair of the MS4. Lodged on Dec. 23, 2015 and still awaiting entry by the court.	No penalty.	Unclear when court will enter CD	Motion to enter the CD has already been filed with the court.
R2	Same case as above	CWA	Consent Decree with Puerto Rico Dept. of Natural and Environmental Resources (DNER). Lodged in court on December 23, 2015 and still awaiting entry by the court. DNER will invest an estimated $33 million over the life of the agreement on various measures including obtaining an NPDES Permit and developing and implementing a storm water management program, various upgrades to pump stations, routine cleaning and maintenance of, and sampling and monitoring at, their pump stations, and making annual payments of $650,000 into a Court Registry Account to be used by the Muni. of San Juan, DTPW and HTA to support implementation of work plans for work in the collection systems that flow to DNER's pump stations.	No penalty.	Unclear when court will enter CD	Motion to enter the CD has already been filed with the court.
R2	U.S. v. New York State Offices of Parks, Recreation and Historic Preservation and the Palisades Interstate Park Commission	SDWA	This consent decree resolves EPA's enforcement action for noncompliance with the Underground Injection Control (UIC) regulations that banned new and existing large-capacity cesspools nationwide as of April 5, 2005. The Consent Decree was lodged December 20, 2016 and could be entered by the court very shortly. Under the CD, the defendants will close 54 large-capacity cesspools pursuant to an enforceable schedule, at a cost of approximately $16 million; will perform Supplemental Environmental Projects (SEPs) valued at $1 million; and pay a civil penalty of $150,000. The SEPs are intended to reduce the quantity of nutrients harmful to water quality, including nitrogen, from entering the local groundwater at seven parks on Long Island.	$150,000	Expected entry by the court in Feb. 2017	Motion to enter the CD has already been filed with the court.
R2	U.S. v. NY Racing Association, Inc.	CWA	This consent decree involves a concentrated animal feed operation that is active during horseracing season at Aqueduct Racetrack. The facility discharged	$150,000	Expected entry by the	Motion to enter the CD has already been filed with the

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			process wastewater into a storm sewer that drained into Jamaica Bay. The consent decree was lodged on Sept. 30, 2016 and is awaiting entry by the court. It requires injunctive relief involving: redirecting the process wastewater to a sewage treatment plant, a telemetry monitoring system to detect dry-weather discharges, and training and measures to prevent further illegal discharges. The decree also requires performance of a SEP consisting of planting trees to reduce stormwater runoff (est. cost: $102,000) and payment of a $150,000 civil penalty.		court in late Jan. or Feb. 2017	court.
R3	U.S. v. Pikewood	CWA	Settlement resolving violations of section 404 of the CWA involving the filling and/or rerouting of 6,024 linear feet of stream and .12 acres of wetlands at the Pikewood National Golf Club in Morgantown, WV. Lodged Jan. 9, 2017.	$1.8 million	Motion to enter Feb. 2017	
R3	U.S. v. Mayor and City Counsel of Baltimore MD.	CWA	Original consent decree entered 2002. Amendment to CD extending compliance deadlines was lodged. Currently addressing citizens comments on amendment.	N/A	Motion to enter May/June 2017	Responding to significant public comments.
R3	U.S. v. Pepco	CWA	Consent decree requiring measures to reduce discharges of toxic metals into Anacostia River. Lodged Jan., 13, 2017.	$1.6 million	Motion to enter Feb. 2017	
R5	U.S. et al. v. U.S. Steel Corporation – Gary Works	CAA	Consent decree resolves claims at three integrated steel mills located in Gary, IN; Detroit, MI; and Granite City, IL. CD requires $30 million in injunctive relief for measures to prevent emissions of particulate and toxic pollutants. The settlement also includes SEPs such as a PCB containing lighting ballast replacement project in Gary public schools. Lodged Nov. 22, 2016.	$2.2 million (split with states)	Motion to enter by late Feb./ early March 2017	
R5	U.S. v. S.H. Bell Company, East Liverpool	CAA	Consent decree resolves claims of imminent and substantial endangerment to the residents of East Liverpool, OH and Glasgow, PA for prolonged exposure to high levels of manganese. S.H. Bell stores and processes ferrous and nonferrous materials, including manganese. EPA Regions 3 and 5 relied on air monitoring conducted in East Liverpool and Glasgow by Ohio EPA and Pennsylvania DEP to show that the company's operations contributed to or caused elevated airborne manganese levels in residential areas near the Bell facility. Lodged Jan. 18, 2017.	No penalty.	Motion to enter by late Feb. 2017	
R5	U.S. & State of Indiana v. City of Gary, IN	CWA, TSCA	Consent Decree resolves many years of Clean Water Act and Toxic Substances Control Act violations by the City of Gary, Indiana, and Gary Sanitary District	$75,000	Motion to enter by late	In addition to the federal penalty, the State is receiving

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			(GSD). GSD has been discharging of 400 million gallons of raw sewage into the Grand and Little Calumet Rivers. The Consent Decree requires GSD to cease its illegal discharges by implementing a "Long Term Control Plan." The Long Term Control Plan will invest in waste water and sewer infrastructure, over the next 25 years to prevent untreated sewage discharges that cause extremely high levels of E. coli bacteria in state waters which violate the criteria designed to protect human health. The settlement also requires that GSD continue to remediate a polychlorinated biphenyl contaminated lagoon. The state of Indiana is co-plaintiff. Lodged Dec., 12, 2016.		Feb. 2017	penalty in form of a Supplemental Environmental Project (SEP) worth $175,000. The difference in the amounts of civil penalties being received by the United States and the State is due to the fact that the State under its SEP policy can offset its share of the civil penalty by ninety percent.
R5	U.S. v. Enbridge	CWA	Consent decree resolving claims stemming from the largest-ever oil spill to a United States' inland waterway – Endbridge's 2010 oil spills in Marshall, Michigan, and a smaller one in Romeoville, Illinois. $110 million in injunctive relief for measures to prevent spills and improve operations across nearly 2,000 miles of Enbridge's pipeline system in the Great Lakes region. Lodged July 20, 2016.	$62 million	Expected entry by the court March 2017	Motion to enter the CD has already been filed with the court.
R5	U.S. & Indiana v. Hammond Sanitary District	CWA	The settlement resolves Hammond Sanitary District's, Indiana (HSD) failure to comply with the requirements of its Clean Water Act National Pollutant Discharge Elimination System Permit and a Decree from 1999. HSD has been discharging of 2.3 billion gallons of raw sewage as often as fifty times per year into the Grand and Little Calumet Rivers. The Consent Decree requires HSD to cease its illegal discharges by implementing a "Long Term Control Plan." The Long Term Control Plan will invest in waste water and sewer infrastructure, over the next 18.25 years to prevent untreated sewage discharges that cause extremely high levels of E. coli bacteria in state waters which violate the criteria designed to protect human health. HSD signed the Consent Decree on January 24, 2017. The State of Indiana is co-plaintiff and concurs in all aspects of the Decree and through this settlement. Motion to enter the CD was filed Feb. 3, 2017.	$561,000		The state accepted a SEP and an environmental mitigation project for the majority of the penalty. Motion to enter the CD has already been filed with the court.
R6	U.S. & the State of Texas v. City of Tyler	CWA	Settlement for violations of the Clean Water Act and terms and conditions of its National Pollutant Discharge Elimination System permits, which set limits for how much of a certain pollutant an entity is allowed to discharge into a waterbody. Violations included frequent discharges of raw sewage to waters of	$563,000 (split equally between U.S. and Texas)	Motion to enter TBD	

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			the United States and failure to prevent sanitary sewer overflows through proper operation and maintenance of its system. Lodged Jan. 17, 2017.			
R6	U.S. & Louisiana Department of Environmental Quality v. Innophos	RCRA	Settlement for violations of RCRA, including sending toxic waste streams for disposal at a neighboring facility that was not permitted to receive them. Violations included failure to: make accurate hazardous waste determinations, submit annual reports to the state of Louisiana (LDEQ), treat or store hazardous waste in tanks with a permit or interim status at the Innophos facility, perform land disposal determination and notification, and ship hazardous waste to a permitted treatment, storage, and/or disposal facility. Lodged Jan. 12, 2017.	$1.398 million (split equally between U.S. and Louisiana)	Motion to enter TBD	
R6	U.S. v. Magellan Pipeline Company, LP	CWA - OPA	Consent decree resolving claims stemming from three oil spills. A Feb. 24, 2011 discharge of 482 barrels of gasoline in Galveston County, Texas, a Dec. 10, 2010 discharge of 1,529 barrels of gasoline, 655 barrels of jet fuel and 650 barrels of diesel near Nemaha, Nebraska and a May 5,2015 discharge of 1,861 barrels of diesel fuel near El Dorado Kansas. $16 million in injunctive relief for measures to prevent spills and improve operations across their system. Lodged Jan. 19, 2017. Also includes Region 7.	$2 million	Motion to enter expected by late March 2017	Although no negative comments are anticipated, pipeline cases in general may generate significant public interest. In addition, additional Magellan pipeline spills have occurred in northern Iowa.
R6	U.S. v. Total Environmental Solutions	CWA	Violations at 168 sewage package plants and ponds used for wastewater disposal. Modified consent decree expected to finish public notice and motion to enter modified CD expected to be filed. Lodged Sept. 30, 2016		Motion to enter April 2017	
R7	U.S. v. City of Pretty Prairie	SDWA	Consent Decree with the City of Pretty Prairie, Kansas to address the City's long-term Public Water Supply violation of the MCL for nitrate of 10 mg/l. The CD was lodged on Jan. 13, 2017 and will be on public notice for 30 days. The City has a population of approximately 700; the water supplied by the PWS recently started to exceed 20 mg/l nitrates. The State of Kansas requested EPA's involvement after almost two-decades of delay by the City to develop a comprehensive and effective plan to meet the Nitrate MCL. The expected cost of the treatment system is approximately $1.7 million, and the City plans to undertake additional PWS infrastructure projects that will cost about $700 K. The CD allows 2 1/2 years for the City to achieve compliance, and provides for extensions if adequate funding is not secured: state revolving fund loan funding has been secured from Kansas; a decision on a Community Development Block Grant (CDBG) loan from the Dept. of Housing and Urban Development for $500,000 was expected in Feb. 2017. A penalty of $1,500 is also included in the	$1,500	Motion to enter by March 2017	May generate significant public interest; Pretty Prairie mentioned during Scott Pruitt's confirmation hearing.

			settlement. On Jan. 14, 2017, the City was informed that the $500,000 CDBG grant was denied this year. EPA/DOJ and the City are discussing options for moving forward with some planned work until the City can apply for CDBG funding in the next grant year. The City is meeting the week of Feb. 13, 2017 and EPA/DOJ will have a call with the City attorney on Feb.17, 2017.			
R7	U.S. v. Meadowvale Dairy	CWA	Consent Decree with Meadowvale Dairy, a large concentrated animal feedlot dairy operation in Rock Valley, Iowa. Defendant agreed to pay a $160,000 penalty, and, among other injunctive relief requirements, conduct a third party compliance audit of its facility. Lodged Jan. 19, 2017.	$160,000	Motion to enter late February 2017	May generate significant public interest. Recently mentioned in a Time Magazine article.
R8	U.S. v. Slawson Exploration Company, Inc.	CAA	Consent Decree resolving violations of the Fort Berthold Indian Reservation Federal Implementation Plan and North Dakota State Implementation Plan. Settlement covers Slawson's oil and gas production well pads in North Dakota.	$2.1 million	Motion to enter granted Feb. 7, 2017	Includes mitigation (auto gauging and drill rig retrofits for Slawson's operations)
R9	U.S. v. Blue Lake Power	CAA	Joint enforcement action with State, settlement of which will resolve Prevention of Significant Deterioration and New Source Performance Standards violations at biomass power plant in Blue Lake, CA. $700,000 injunctive relief for installation of best available control technology. Local Tribe intervened and contested settlement at hearing.	$5,000	Expected entry by court in Feb. 2017	Motion to enter the CD has already been filed with the court.
R9	U.S. v. Matson Terminals, Inc.	CWA	Consent Decree resolving claims from massive molasses spill into Honolulu Harbor that killed 25,000 fish and damaged coral reefs. Under agreement with State, Matson ceased transporting molasses through Honolulu Harbor and is paying for re-growing corals and reimbursing cleanup costs. Separate criminal action resulted in a $400,000 fine and $600,000 restitution for coral reef programs, invasive algae cleanups, and beach cleanups.	$725,000	Expected entry by court in Feb. 2017	Motion to enter the CD has already been filed with the court. Awaiting judge's entry.

CATEGORY 2 – Consent Decree to be signed/lodged in next 90 days

Region / Office	Case Name	Statute	Brief Description	Penalty	Expected Date	Other
HQ	U.S. v. Fiat Chrysler Automobiles	CAA	This case concerns Fiat Chrysler Automobiles' (FCA) failure to disclose engine management software in approximately 104,000 light-duty diesel vehicles. Notice of violation issued on Jan. 12, 2017. Additional investigation may warrant additional allegations that FCA knowingly employed defeat devices. It is possible	Unable to estimate at this time. May be significant.	1) File statement of interest in the now	This case will likely involve mitigation in excess of $1 million.

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			that EPA can create and lodge a partial consent decree by April 2017 that would require a recall of the high-polluting vehicles on the road. It may be appropriate to resolve these issues prior to resolving the remaining issues (e.g. penalty). A necessary immediate action is for DOJ to file a statement of interest in the now-forming multi-district litigation (MDL). This would be a consolidated legal action including most or all lawsuits (consumer and environmental) concerning the same vehicles.		forming multi-district litigation on Feb. 24, 2017. 2)Settlement possibly as early as April 2017	
HQ	U.S. v. ExxonMobil Chemical	CAA	A multi-plant settlement to resolve New Source Performance Standards (NSPS), maximum achievable control technology (MACT), and Title V violations at Exxon's chemical, olefins, polymer, and plastics manufacturing facilities located in or near Baytown, Beaumont, and Mont Belvieu Texas, and Baton Rouge, Louisiana.	Still being negotiated	March 2017	
HQ	U.S. v Vopak	CAA	A single plant settlement with a bulk chemical storage facility in Deer Park TX for NSPS, MACT, SIP and Title V violations.	$2.5 million	April 2017	Mitigation is still being negotiated.
HQ	U.S. v. Orion Engineered Carbons LLC	CAA	A company-wide "global" settlement with a carbon black manufacturer that operates three plants in TX, LA and OH. Multi-regional case that includes Regions 5 and 6.	$800,000-$900,000 (still under negotiation)	April 2017	Mitigation projects to reduce PM emissions (high efficiency scrubber, cartridge filter and vacuum system), with nominal energy efficiency projects, under negotiation (approx. $550,000-$600,000).
R1	U.S. v. City of Quincy, MA	CWA	There is a lengthy history of sanitary sewer overflows (SSO) and municipal separate storm sewer system (MS4) violations by City of Quincy, MA.	Undetermined	April, 27, 2017	
R1	U.S. v. Clean Rentals, Inc.	CAA	Industrial laundry violated new source review (NSR) program requirements and Title V permit program requirements.	$200,000	Feb. 28, 2017	
R1	U.S. v. Burough of Naugatuck, CT	CAA	Community failed to comply with sewage sludge incineration requirements.	Undetermined	April 27, 2017	
R1	U.S. v. Waterbury, CY	CAA	City of Waterbury failed to comply with sewage sludge incineration requirements.	Undetermined	April 27, 2017	
R2	U.S. v. Paulsboro Refining	CAA	The consent decree in this refinery case will require early compliance with the	$180,000	March/	

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	Company, LLC		flaring requirements of the refinery sector rule for two of the company's flares (by July 30, 2018). The injunctive relief value is estimated at $300,000 to $400,000.		April 2017	
R2	U.S. & New York State v. Momentive Performance Materials Silicone, LLC	CAA, RCRA	This is a penalty-only settlement of a case involving extensive operation of a hazardous waste incinerator in violation of the facility's air and hazardous waste permits. The company bypassed its automatic waste feed cutoff system and operated its hazardous waste incinerator illegally. Momentive Performance Materials Silicone is the current owner/operator of the facility. We previously entered into a penalty settlement with the prior owner/operator (General Electric Company).	$1.25 million (to be split equally by U.S. and New York)	March 2017	
R2	U.S. v. Somerset-Raritan Valley Sewerage Authority	CAA	Case involves operation of a sewage sludge incinerator in violation of CAA regulations. Defendant wants to enter into an agreement as soon as possible so that it can start up its sewage sludge incinerators during renovation of the units. The settlement will require the defendant to install compliant mercury emission controls, establish a $50,000 program to mitigate lead (a mercury surrogate pollutant that also has neurotoxic effects), and establish a program that allows the facility to post real-time SO_2 and CO data on its website.	Penalty still being negotiated but is expected to be no more than $446,850	April 2017	
R2	U.S. v. Homeca Recycling Center Co., Inc.	RCRA, CAA, CWA	Case involves violations by three different automobile shredding/metal recycling facilities in Puerto Rico. The settlement has already been signed by the defendant and EPA and is awaiting approval at DOJ and lodging with the court. It requires the company to comply with the rules it violated and to pay a civil penalty of $50,000 (an amount that takes into account ability-to-pay).	$50,000	Early to mid-February 2017	
R2	U.S. v. Falcon Petroleum	RCRA	Case involves failure to comply with underground storage tank (UST) requirements. The defendant and EPA have signed the CD and it will be signed and lodged by DOJ shortly. The complaint was filed previously. The Defendants will pay a civil penalty, install fully automated electronic monitoring equipment for the USTs at seven service stations, and be required to comply with UST rules. Settlement also includes a Supplemental Environmental Project (SEP) (see "Other" column).	$60,000	Feb. 2017	CD includes a SEP at 26 stations that involves the installation of a centralized monitoring system to allow for 24/7 remote monitoring of release detections systems for the USTs, to more quickly detect and respond to any potential releases of gasoline from the tanks.
R2	U.S. v. NVR, Inc.	CWA	This is a construction stormwater case involving 65 construction sites. The violations include failure to obtain permits before commencing construction	$425,000	Feb. 2017	

			activity and some failures to comply with the terms of the applicable general permit and site-specific stormwater pollution prevention plans (SWPPPs) by implementing, inspecting, and maintaining required stormwater controls. The injunctive relief will require enhanced inspections and reporting to ensure company-wide compliance and accountability with the requirement to obtain a permit and comply with the applicable SWPPP(s).			
R2	U.S. v. Chevron Puerto Rico, LLC f/k/a Texaco Puerto Rico	[redacted]	[redacted]	[redacted]	[redacted]	
R2	U.S. v. Municipality of Arecibo	CWA	Consent decree amendment. A consent decree was entered in this case in 2013 to resolve the municipality's stormwater and non-stormwater discharge violations relating to its municipal separate storm sewer system. The CD includes extensive injunctive relief to bring the municipality into compliance with the CWA. Over the last year, we have been negotiating a modification to the CD that will require the municipality to construct an additional stormwater retention pond and will give the municipality more time to complete the remaining injunctive relief and pay the ~$250,000 remainder of the agreed-upon civil penalty.	~$250,000	April 30, 2017	
R2	U.S. v. Municipality of Santa Isabel	RCRA	We are nearing completion of the negotiation of a consent decree that will resolve our injunctive relief and civil penalty claims for the municipality's noncompliance with a RCRA Section 7003 administrative order on consent. The CD will provide for permanent closure of the municipal solid waste landfill in Santa Isabel, Puerto Rico and for post-closure care. The landfill has already ceased receiving solid waste. Under the CD, the muni. is also agreeing to implement a recycling program to decrease the future generation of solid waste. A representative of the municipality has indicated the mayor is ready to sign the CD, which has been sent to the municipality for its signature.	$20,000	March 2017	

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R3	U.S. et al. v. Lehigh Cement	CAA	New Source Review (NSR)/ Prevention of Significant Deterioration (PSD) global settlement (multi-regional) brought under the National Enforcement Initiative for the Glass Manufacturing sector. Lehigh operates cement plants across the country, including plants in Union Bridge, MD; Fleetwood, PA; and York, PA. The settlement will involve penalties, controls/rates as injunctive relief, and clean diesel replacement for mitigation. The U.S. will receive $650,000, the states will split another $650,000, and Lehigh will spend another $650,000 to replace old diesel engines. Maryland and Pennsylvania have been also involved in the negotiations. The settlement is similar to other national cement settlements.	$1,300,000 (split with states)	March 2017	Includes additional $650,000 mitigation project to replace old diesel engines.
R3	U.S. v. CSXT	CWA 311	In February, 2015, a CSXT train derailed in Mount Carbon, Fayette County, West Virginia. Twenty-seven railcars carrying Bakken crude oil derailed and two of those railcars ruptured, ultimately causing explosions and fires in twenty-four of twenty-seven of the railcars. EPA referred the case in September 2015 seeking penalties and injunctive relief.	$3 million to $5 million	April 2017	April is possible but unlikely because we are likely to negotiate SEPs and we are far apart on penalty at this time.
R3	U.S. v. Alcosan	CWA	Municipal combined sewer overflow (CSO) consent decree entered 2002. CD amendment pending to extend compliance deadlines and modify Long Term Control Plan controls.	N/A	June 2017	
R3	U.S. v. Hampton Roads Sanitation District	CWA	Possible consent decree amendment. CD circulating for concurrence; will allow facility additional time to address sanitary sewer overflows (SSO) violations; and allow disposal of treated wastewater via underground injection rather than through discharge from POTW.		Feb. 2017	
R4	U.S. v. Pilkington Glass	CAA	NSR/PSD settlement brought under the National Enforcement Initiative for Reducing Air Pollution from the Largest Sources (Glass Manufacturing sector).	$302,000	May 2017	$545,000 SEP.
R4	U.S. v. Akzo Nobel	CAA	NSR/PSD settlement brought under the National Enforcement Initiative for Reducing Air Pollution from the Largest Sources (Acid Manufacturing sector).	$300,000	May 2017	$150,000 mitigation project
R4	U.S. & Mississippi v. Denbury Onshore, LLC	CWA	This matter involves a civil referral for injunctive relief and penalties for violations by Denbury Onshore, LLC. (Denbury) of the Clean Water Act. The State of Mississippi is a co-plaintiff. DOJ has as an approved Complaint that includes 33 violations for discharges of oil, six violations for failure to have prepared Facility Response Plans (FRPs), and one violation for failure to have an adequate Spill Prevention Control and Countermeasure (SPCC) Plan. EPA, DOJ, and MDEQ, acting on behalf of the State of Mississippi, are nearing completion of negotiations on injunctive relief to be included in the Consent Decree. The EPA is finalizing its penalty calculations with the help of an outside contractor (ERG)	TBD	March 2017	

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			on the economic benefit portion of the penalty. The parties have not yet discussed the penalty but plan to do so soon.			
R4	U.S. & Mississippi Department of Environmental Quality v. City of Hattiesburg, MS	CWA	In the final stages of settlement negotiations to resolve violations of the Clean Water Act caused by numerous and significant sewage overflows in the City and reporting violations. This case seeks to reduce sewage overflows. The Mississippi Department of Environmental Quality has indicated they will participate in this civil action as a co-plaintiff.	$275,000 estimated	March 2017	Potential SEP.
R4	U.S. v. Gulfstream Park Racing Association, Inc. (FL)	CWA	An Agreement in Principle to settle the CWA violations by Gulfstream Park Racing Association at its thoroughbred horse racing facility located in Broward and Miami-Dade Counties, Florida. Violations include: unauthorized discharges and noncompliance with the National Pollutant Discharge Elimination System (NPDES) permit requirements. The agreement includes an Administrative Order on Consent, effective Jan. 12, 2017, for the injunctive relief measures to be implemented immediately by Gulfstream Park Racing Association and a Stipulation of Settlement for penalty only. The Stipulation of Settlement will be filed in the United States District Court for the Southern District of Florida and will become effective when the court enters an order approving it. The Florida Department of Environmental Protection (FDEP) declined to participate in this civil action as a co-plaintiff.	$456,500	Feb. 28, 2017	Concentrated Animal Feeding Operations - National Enforcement Initiative.
R4	U.S. v. Aerospace (AL)	CWA	Stipulation of Settlement (penalty only) reached to settle CWA violations by Aerospace at its metal finishing operations facility located in Oxford, Alabama. This facility is a "significant industrial user" with violations that include discharge without a State Indirect Discharge Permit (SID), failure to comply with general and categorical pretreatment standards, failure to comply with its SID permit requirements, and failure to install and operate pretreatment equipment prior to discharge to a sewer treatment plant. The Stipulation of Settlement will be filed in the United States District Court for the Northern District of Alabama and will become effective when the court enters an order approving it.	$400,000	Feb. 2017	Pretreatment case; additional injunctive relief not needed.
R4	U.S. et al. v. Horsehead Corporation	RCRA	EPA, DOJ, and the states of Tennessee, North Carolina, and South Carolina are working to finalize separate Complaints and Consent Decrees regarding RCRA Subtitle C violations for the TN and SC facilities to share with Horsehead for negotiation of the injunctive relief and penalties (to be paid based on the allocation assigned within Horsehead's recent bankruptcy). Settlement on the NC facility will be at a later date. The facilities are located in Rockwell, TN;		May 2017	

			Mooresboro, NC; and Barnwell, SC.			
R4	U.S. & Georgia v. Woco Pep	CWA, RCRA	EPA, DOJ, and GAEPD, on behalf of the State of Georgia, are working to finalize a Consent Decree with Woco Pep relating to multiple CWA Oil Pollution Act and underground storage tank violations involving release detection and release prevention at multiple facilities. Settlement documents are currently routing for approval at DOJ and in R4 prior to sending to company for signature. Goal is to finalize and file the Consent Decree in February or March 2017. Draft Consent Decree includes injunctive relief requiring closure of multiple tanks, a SEP requiring automatic release detection technology for remaining tanks, and a $50,000 penalty.	$50,000 (split with state)	Feb./March 2017	SEP involved ($100,000).
R5	U.S. v. Maynard Steel, Milwaukee, WI	CAA, RCRA	Settlement of permit and good air pollution control practice violations at an electric arc furnace.	$25,000	Feb. 2017	Includes upgrades to the capture and control system.
R5	U.S. v. Mesabi Nugget	CAA	Settlement resolves National Emission Standards for Hazardous Air Pollutants (NESHAP) violations and over twenty stack test failures. Mesabi processes iron ore concentrate to produce iron ore nuggets for integrated steel mills.	$150,000	April 2017	Facility was a failed pilot project and is currently idled and in bankruptcy.
R5	U.S. v. PPG Industries, Delaware, OH	CAA	Settlement resolves NESHAP violations, and is part of the Leak Detection and Repair (LDAR) National Enforcement Initiative (NEI).		April 2017	
R5	U.S v. MPLX	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
R5	U.S. v. Anchor Glass	[redacted]	[redacted]	$1.1 million	April 2017	$600,000 mitigation project (global)
R5	U.S. vs. Sunoco Pipeline LP	[redacted]	[redacted]	[redacted]	[redacted]	

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			[redacted]			
R6	U.S. v. City of Corpus Christi	CWA	Clean Water Act, Section 301, violations at wastewater treatment plants and associated sewage collection system. Consent Decree expected to be lodged.		June 2017	
R6	U.S. v. City of Houston	CWA	Clean Water Act, Section 301, violations at wastewater treatment plants and associated sewage collection system. Consent Decree expected to be lodged.		April 2017	
R6	City of Shreveport, AR	CWA	Clean Water Act, Section 301, violations at wastewater treatment plants and associated sewage collection system. Consent decree in place. Defendant has requested to extend one consent decree deadline by three months. EPA and DOJ consider this request to be a non-material modification that does not require court approval. May not be sufficiently significant.		April 2017	
R6	U.S. v. Alon Big Spring	CAA	Settlement resolving refinery NSR claims	TBD	March 2017	Led by OECA
R7	U.S. v. Harcros Chemicals	CAA	Settlement of General Duty Clause (GDC) and Risk Management Plan (RMP) violations of the Clean Air Act section 112r by Harcros Chemicals. Settlement covers 29 Harcros facilities located in multiple EPA regions. (Regions 1, 4, 5, 6, 7 and 8).	$1 million	Feb. 2017	Includes $2.49 million supplemental environmental project (SEP) requiring installation of a foam fire suppression system at eight facilities. Briefed and cleared to proceed.
R7	U.S. & Nebraska v. Omaha Public Power District	CAA	EPA has been negotiating a Consent Decree for Prevention of Significant Deterioration (PSD) violations with Omaha Public Power District. We are currently in the final stages of determining whether a settlement is possible. We are hoping to reach a final injunctive relief package and then will negotiate the remaining terms of the Consent Decree.	TBD	April 2017	Nebraska plans to be a co-plaintiff.
R7	U.S. v. Columbian Chemicals	CAA	A multi-regional NSR settlement with a carbon black manufacturer that operates two plants located in LA and KS. Multi-regional case that involves both Regions 6 and 7, as well as the states of Louisiana and Kansas. R7 received	TBD	April 2017	

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			Columbian's draft CD on February 7 and worked with KDHE and LDEQ to send out a counterproposal on February 14. Still negotiating compliance dates and emission rates of injunctive relief, as well as penalty and mitigation figures.			
R8	U.S. v. Kinder Morgan	CAA	CAA 112r violations case for Kinder Morgan's natural gas processing facilities in Rawlins, WY and Altamont, UT.		June 2017	Possible SEPs and third party compliance audits as well as possible electronic recordkeeping/reporting.
R8	U.S. v. Rocky Mountain Bottle Company, LLC	CAA	Clean Air Act new source review (NSR)/Prevention of Significant Deterioration (PSD) violations at beverage bottling plant owned/operated by Rocky Mountain Bottle Company (RMBC) in Wheat Ridge, CO (50/50 joint venture of Miller-Coors LLC and Owens-Brockway Glass Container, Inc.). CD not finalized, but could be executed and lodged within the next 90 days.	$300,000 - $650,000	May 2017	CD, if finalized, expected to include mitigation offered by RMBC - Organic Rankine Cycle System to convert waste heat into energy to power oxygen plants.
R8	U.S. v. Exxon Yellowstone Silvertip Pipeline Spill (a/k/a EMPCO)	CWA OPA	Spill occurred on July 1, 2011. Approximately 1,509 barrels of oil were discharged from the company's pipeline into the Yellowstone River near Laurel, MT. The EPA/DOJ team is near an agreement with EMPCO on the penalty (around $1.1M), but certain injunctive relief matters are still under discussion.	~$1.1 million	April 2017	At the time of the spill there was significant national press coverage of the event. Tolling agreement is in place.
R9	U.S v. Nevada Cement	CAA	Settlement resolving Prevention of Significant Deterioration (PSD) claims at cement plant near Reno, NV. $2.5 million injunctive relief for installation of best available control technology. $420,000 mitigation to replace two heavy duty diesel vehicles.	$550,000	Feb. 2017	
R9	U.S. & Nevada v. North Las Vegas	CWA	Joint enforcement action with State of Nevada regarding pretreatment program violations. Substantive injunctive relief already agreed to and carried out. Settlement is for a civil penalty to be split with State.	$365,000 (split with state of Nevada)	March 2017	
R9	U.S. v. Chevron	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
R10	U.S. v. Westward Seafood--Alaska	CAA	The Westward Seafoods Consent Decree settlement is expected to be finalized this week or early next week, with signatures from the company, the State of AK, R10, and DOJ. It will then be lodged in the U.S. District Court of AK and available for public comment for 30 days. The CD resolves violations of CAA requirements for the fish processing plant in Dutch Harbor, AK. Under the settlement, Westward will spend $1.1 million on pollution reduction projects and pay a $1.3	$1.3 million	Expected to lodge by mid Feb. 2017	Briefing occurred Feb. 9, 2017 and R10 was given the go ahead.

			million civil penalty. R10's Tribal Program will assist in outreach to the Qawalangin Tribe of Unalaska, an Alaska Native Village.			

CATEGORY 3 – New Judicial Referrals sent to DOJ since Jan. 20, 2017

Region / Office	Case Name	Statute	Brief Description	Penalty	Date Sent	Other
R2	U.S. v. Allied Waste Niagara Falls Landfill, LLC	CAA	This is a large non-hazardous waste landfill in western New York that continues to be in major noncompliance with CAA regulations, relating to quantification, management and collection of landfill gas. Our requested injunctive relief would involve correcting the noncompliance, as well as mitigation to offset the unlawful past emissions.	Penalty amount to be discussed by EPA/DOJ negotiation team, but our preliminary calculations are in the multiple millions of dollars.	Jan. 26, 2017	
R5	Dow Chemical Corporation	CWA, RCRA	Dow owns and operates an industrial organic chemical manufacturing facility located in Midland, Michigan. This referral supplements EPA's Sept.2011 and Sept. 2012 referrals for Dow to resolve CWA and RCRA permit violations identified during a subsequent inspection at the Facility and information requests	Not yet determined	Feb. 2017	DOJ has been in discussions with the facility and both parties anticipate quick settlement of all issues.

CATEGORY 4 – Upcoming filings/hearings on significant matters (e.g., complaints, s.j. motions, substantive briefs on important issues, oral arguments)

Region / Office	Case Name	Statute	Type of action	Brief Description	Expected Date	Other
HQ	U.S. v. Volkswagen et al. (first partial CD)	CAA	Consent Decree Implementation Including Approvals to Defendants and Filings with Court	EPA is implementing the first of three partial CDs to resolve allegations that Volkswagen light-duty diesel vehicles since 2009 are equipped with defeat devices	(1) Recall decisions to be made in	

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				in the form of computer software designed to cheat on federal emissions tests. Under this first partial CD, entered by the Court on Oct. 25, 2016, VW must perform injunctive relief in three major categories, and EPA and DOJ have certain responsibilities to act on VW's deliverables in the near term. (1) Recall: VW has proposed technical fixes to reduce NOx emissions from some of the affected vehicles. OECA will approve or deny these fixes in collaboration with OAR-OTAQ and California. (2) Zero Emission Vehicles (ZEV): VW is required to invest over a period of ten years $2 billion for ZEV infrastructure, access and education ($1.2 billion outside California and $800 million within California). VW must propose plans for investment every 30 months (investment cycles) and EPA/CARB respectively approve the plans. The CD provides that within the acceptable categories of investments "Settling Defendants are solely responsible for every aspect of selecting the categories of investments . . . as well as the timing and locations of any National ZEV Investment." Under the CD, EPA will be called upon to approve both an investment plan and a guidance document for determining the amount of credit Settling Defendants will receive for investment activity (the Creditable Cost Guidance"). (3) Mitigation Trust: EPA and DOJ are collaborating with states and tribes to finalize a list of candidates to serve as Trustee to a yet-to-be-formed Mitigation Trust. Volkswagen will be required to establish this Trust with $2.7 billion (plus $225 million once the second partial CD is entered), and then all 50 states, Puerto Rico, the District of Columbia, and certain federally recognized Indian tribes may use their	about March 2017 (2) ZEV Creditable Cost Guidance approval Feb. 10, 2017 ZEV Investment Plan Approval in Feb. 2017 (3) Trustee recommendations to the Court around late Feb. 2017	

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				allocated share of that money to fund their choice of ten categories of projects to replace older, high-polluting vehicles and engines with cleaner units. The Trustee (not EPA) will decide whether projects qualify for funding. According to the first partial CD, the Court will select the Trustee from a list of candidates submitted by DOJ.		
HQ	U.S. v. Derive Systems et al.	CAA	Complaint	This case would address allegations that Derive systems manufactured and sold over 100,000 aftermarket defeat devices (in the form of computer software and related hardware) that were used to defeat emision control systems (like catalysts and filters) from motor vehicles (primarily diesel pick-up trucks).	Feb. 2017	
HQ	U.S. v. Western Dubuque & NGL (NGL case)	CAA	Brief	On October 4, 2016, the United States filed a complaint alleging that NGL Crude Logistics, LLC violated the renewable fuel standards regulations. We are litigating our claims against NGL (co-defendant WDB has agreed to settle). NGL filed a brief regarding the U.S. motion to enter an amended complaint in the WDB settlement. The U.S. response to that brief filed on Jan. 30, 2017. NGL also filed a motion to dismiss the amended complaint. The U.S. response to NGL's motion to dismiss the amended complaint is due on February 6, 2017.	Feb. 16, 2017 (U.S. reply to motion to dismiss)	Related case: See entry in Category 1 with same case name, labelled "WDB case" below for information on co-defendant WDB.
HQ	U.S. v. Nicor	TSCA	Unopposed Motion to Withdraw	Filing of unopposed motion to withdraw administrative penalty case. Nicor Gas services is a local natural gas distribution company (LCD). Nicor Gas disclosed to EPA PCBs at quantities exceeding the permitted use authorization, which is a violation of TSCA and the implementing regulations. Additional information led to decision to withdraw.	March 2017	
R1	U.S. v. Maietta Construction	CWA	Potential Complaint	10.4 acres of forested freshwater wetlands were filled between 2001 and 2015 for construction	March 10, 2017	Tolling agreement likely to be extended until June 2017.

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R2	U.S. v. Global Companies LLC	CAA	Complaint	material staging area. Global Companies operates an oil terminal in Albany, NY. EPA alleges facility failed to comply with new source review (NSR) requirements of the New York State Implementation Plan (SIP). Negotiations are ongoing but may not be successful. The statute of limitations tolling agreement expires March 31, 2017 and it is unclear whether it will be extended. Filing of a complaint may be necessary ; it would seek injunctive relief and a civil penalty.	Late March/April 2017	
R3	U.S. v. Brace	CWA	Motion for summary judgment to be filed.	Complaint filed Jan. 6, 2017 for CWA 404 case. Answer due March 13, 2017. Discovery schedule to follow. Defendant filed a motion to extend timeframe on Feb, 1, 2017, U.S. plans to oppose. Defendant's motion granted.	1) Feb. 21, 2017 - Defendants must file their "initial" response to our motion to enforce 2) Feb. 28, 2017 – U.S. "initial" reply to the motion to enforce due 3) March 8, 2017 - deadline for mediation, the parties must include someone with full settlement authority	Farming activities at site.

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R3	U.S. v. Foster Farms	CWA	Summary judgment briefs to be filed in 4-8 weeks	Water of the US contested. Also first amendment claim	Feb. 21, 2017 (motion for summary judgment)	
R4	U.S. & Georgia v. Dekalb County, GA	CWA	Stipulated Penalty Demand	A consent decree was entered in 2011 settling the County's violations of the Clean Water Act resulting from Sewage overflows. The consent decree provides for stipulated penalties to be paid for Sewage overflows and for reporting violations occurring after entry of the Consent Decree. The EPA and the State of Georgia have calculated stipulated penalties totally $290,500.	Feb. 2017	EPA and the State previously assessed and collected stipulated penalties for Sewage overflows that occurred in 2012 and 2013.
R4	U.S. & Kentucky v. Sanitation District No. 1 of Northern KY (SD1)	CWA	Judicial Dispute Resolution	A Consent Decree was entered in federal District Court in 2007 settling SD1's violations of the Clean Water Act resulting from combined sewer overflows and sewage overflows. The Consent Decree requires injunctive relief to be completed by 2025. Arguing that achieving compliance by this deadline imposed an undue financial burden on its ratepayers, SD1 requested an extension to 2046. The United States and the Commonwealth of Kentucky did not agree to this request, and SD1 subsequently filed a notice of dispute resolution under the Consent Decree.	Feb. 2017	If an agreement is not achieved informally within the next month, the United States and Kentucky will have to set forth a position in formal dispute resolution before the federal District Court as early as March or April 2017.
R4	U.S. & Tennesse v. Nashville (TN)	CWA	Long Term Control Plan approval	Nashville submitted Long Term Control Plan (LCTP) as part of the Consent Decree obligations to resolve Clean Water Act violations related to sewage overflows and combined sewer overflows. EPA and TDEC to discuss path forward regarding review and the shortcomings of the submitted LCTP.	Feb./March 2017	Working with state partners; may disapprove the LCTP or ask for a modified version of LTCP.
R5	U.S. v. Consolidated Grain and Barge, Mt. Vernon, IL	CAA	Administrative Complaint	Complaint to be filed for visible emissions (VE) violations at a grain elevator. The penalty sought is around $150,000.	April 2017	Illinois EPA inspectors took the VE readings.
R5	U.S. v. Chesapeake	CAA	Judicial Complaint	Referral covers twenty of Chesapeake's gas wells	March 2017	Negotiations are in an early

				across Region 5. The claims include violations of the New Source Performance Standards.		stage.
R6	U.S. v. Citgo	CWA	Oral Arguments for CWA OPA case.	Reply Brief and Cross Appeal filed by the U.S. on Jan. 18, 2017, before the 5th Circuit Court of Appeals. Oral Arguments by both sides expected.	No date provided yet by the Court of Appeals	Judge ordered $81 million penalty.
R6	U.S. v. Luminant	CAA	File Notice of Appeal	Appeal of new source review (NSR) Power Plant case decision. The U.S. has a Feb. 24, 2017 deadline for filing a notice of intent to appeal. This Clean Air Act case enforces new source review and prevention of significant deterioration requirements (NSR/PSD). The district court issued an Aug. 21, 2015 Order dismissing five of the six PSD claims as time-barred.	Feb. 24, 2017	
R7	U.S. v. Ameren	CAA	Status conference	District court ruled in favor of EPA on liability on Jan. 23, 2017. Amended disclosures are due April 5, and a scheduling conference has been scheduled for April 20. A liability bench trial in this case was held in federal District Court in St. Louis in late August/early September 2016. This case involves alleged violations of Prevention of Significant Deterioration (PSD) by Ameren for SO2 at its Rush Island units 1 and 2 in 2007 and 2010, respectively. EPA will ask the court to require Ameren to install scrubbers to control SO2 emissions and other actions to mitigate past harm. Sierra Club filed a motion to intervene on Feb. 15, 2017. Ameren's response to that motion is due March 2, 2017 and Sierra Club's reply is due March 10, 2017.	April 20, 2017 for remedy trial scheduling conference.	The outcome of this case is precedent setting.
R7	U.S. v. Black Tea Oil, LLC	CWA		On January 18, 2017, EPA and DOJ filed a complaint against Black Tea Oil, LLC; Chris Lieker (an individual) and Trans Pacific Oil Company, Inc. for violations of Section 311 and 404 of the CWA (involving SPCC violations and the construction of oil wells within the Smoky Hill River). Defendants' attorneys indicate	Answer due 30 days after service of complaint (has not yet been served)	

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				they will provide an affidavit for service the week of February 20, enabling EPA to serve the Defendants' attorneys with the Complaint. The defendants' Answer to the Complaint will be due 30 days from service.		
R7	U.S. v. STABL, Inc. (f/k/a Nebraska By-Products, Inc.), Lant, Inc., Leon Johnson and Ann Johnson	FDCPA		The United States and the State of Nebraska obtained a judgment of $2,285,874 against STABL in January 2014 for violations of the CWA, which was subsequently affirmed by the 8th Circuit. STABL has never paid any portion of that judgment to the U.S. or the State of Nebraska. The U.S. filed a complaint in March 2016 alleging that STABL, its parent holding company, Lant, Inc., and Leon and Ann Johnson (the owner and sole shareholder of STABL and Lant) violated the Federal Debt Collection Procedure Act. The FDCPA allegations center around three $2 million wire transfers from Nebraska By-Products, Inc. to personal accounts of Leon and Ann Johnson shortly after receiving a penalty demand from the U.S. The State of Nebraska filed its own collection action in July 2016, which both the U.S. and the State seek to consolidate.	1) The U.S.'s and the State's response to the Defendants opposition to motion to consolidate is due Feb. 28, 2017. 2) Rule 26(f) Conference. Timelines for discovery and for potentially amending the complaint will be established March 15, 2017.	
R8	U.S. and State of Colorado v. Colorado Springs	CWA	Preliminary Injunction	Joint EPA-State complaint filed Nov. 2016 to address extensive violations of the City's municipal separate storm sewer system (MS4) permit. Colorado is co-plaintiff. The Lower Arkansas Valley Water Conservancy District has filed a motion to intervene	Late Feb. 2017	Senator Cory Gardner's office expressed some interest in the case before the complaint was filed. Draft preliminary injunction

				in the suit, and Pueblo County Board of Commissioners has recently requested that the County's attorney also file a motion to intervene. The U.S. and State are preparing a motion for a preliminary injunction that would require the City to comply with its MS4 permit at four development sites currently under construction without the required stormwater controls.		package is circulating for review. Pueblo County Commissioners have voted to move to intervene.
R8	U.S. v. Beaverhead	SDWA	Injunction	R8 referral to DOJ to seek an injunction requiring the Beaverhead Jackson County Water and/or Sewer District in Dillon, Montana (District) to comply with the National Primary Drinking Regulations. The District is in violation of the maximum contaminant levels (MCL) for arsenic and combined radium. In 2009, Region 8 issued an administrative order requiring the District to submit a compliance schedule for the arsenic MCL. The District has missed deadlines in that schedule and has failed to comply with other drinking water regulations. The EPA has worked extensively with the District to assist it in obtaining funds for necessary system improvements. The requested R8 injunction is intended to commit the District to a course of action for achieving compliance.	May 2017	The State of Montana referred this case to the EPA.
R8	U.S. v. Utah Department of Transportation	CWA	Complaint and consent decree	R8 referral to DOJ to file a lawsuit against the Utah Department of Transportation (UDOT) for violations of UDOT's municipal separate storm sewer system (MS4) permit. EPA is requesting (1) civil penalties and (2) an injunction requiring compliance with the current permit and corrective actions recommended in a report from a 2013 joint EPA/Utah Department of Environmental Quality inspection. UDOT has signed a tolling agreement extending the tolling period to September 1, 2017.	September 2017	On Jan. 23, 2017, DOJ notified the Utah Attorney General's Office of this referral and invited UDOT to discuss settlement before the complaint is filed. DOJ requested UDOT contact them by Feb. 13, 2017. As of Feb. 1, UDOT has not contacted DOJ. R8 called

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						Utah DEQ the week prior to the letter being sent, and Utah DEQ notified the state AG and UDOT of the forthcoming letter. R8 and DOJ expect UDOT will be willing to enter into negotiations to settle the case by entering into a consent decree. On approximately February 3, 2017, the AG contacted DOJ and expressed a desire to enter into settlement negotiations. UDOT is compiling an update on the corrective actions it has taken since its last update in 2015. After EPA receives the update we expect to begin negotiating a consent decree. The Utah Department of Environmental Quality has been supportive of this action but has advised us that it does not wish to become a co-plaintiff.
R8	U.S. v. Van Hook Crude Terminal (a/k/a U.S. Development Group, LLC (USDG), Van Hook Crude Terminal, LLC (VHCT), and Plains All American	CAA	Complaint	R8 and DOJ have concluded that the companies violated the Clean Air Act by constructing (Oct. 2011) and operating (Feb. 2012) a crude oil transloading facility prior to obtaining a synthetic minor Prevention of Significant Deterioration (PSD) permit from EPA. EPA issued a Prevention of Significant	April 2017	A key element in the negotiations will be the economic benefit calculation.

	Pipeline, L.P. (PAAPL))			Deterioration (PSD) permit on Sept. 1, 2012. The facility is located in the Fort Berthold Indian Reservation. After constructing the facility, USDG sold its ownership interest in VHCT to PAAPL. PAAPL and DOJ/EPA met on Jan. 26, 2017, and DOJ/are planning to meet with USDG in mid-March.		
R8	BNSF Railway Company	CWA	Pre-filing negotiations, and possible settlement	R8 referral to DOJ to seek a civil judicial penalty for an oil spill caused by a train derailment near Heimdal, North Dakota, on May 6, 2015. Nearly 97,000 gallons spilled. An estimated 60,000 gallons discharged into Big Slough and its adjacent wetlands, impacting approximately 4.9 acres.	Late May 2017	Initial penalty demand of approximately $2.1 million. Cleanup efforts are ongoing. We also may seek an injunction if the spill has not been fully cleaned up by the time we resolve the penalty action.
R8	U.S. v. Bunn and Snyder Logging and Landscaping	CWA	Civil judicial complaint (not yet filed)	CWA section 404 case involving the unauthorized filling of approximately three acres of rare peat wetlands adjacent to the Yaak River near the Town of Troy, Lincoln County, Montana.	DOJ (John Cruden) approved the complaint for filing in Dec. 2016. R8 is coordinating with OECA on timing for filing complaint.	EPA attempted to negotiate an administrative settlement with the proposed defendants for restoration of the site, but was unsuccessful due to non-responsiveness on the part of Mr. Bunn, the landowner. DOJ contacted the proposed defendants to discuss settlement and Mr. Bunn stated that he is preparing a draft "restoration" plan for DOJ
R8	U.S. v. Saratoga Springs Owners Association, Inc. and Cross Marine Projects, Inc.	CWA	Civil judicial complaint (not yet filed)	CWA section 404 case involving the unauthorized discharge of dredged and fill material into approximately 3 acres of Utah Lake and its adjacent wetlands. Both of the proposed defendants had prior knowledge of the CWA section 404 program, and the Saratoga Springs Owners Association had a	DOJ (John Cruden) approved the complaint for filing in Oct. 2016. R8 is	For over a year, the EPA attempted to negotiate an administrative settlement with the proposed defendants for restoration of the site but was

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				previous CWA section 404 violation in the same location as the current violation, which it was required to restore.	coordinating with OECA on timing for filing complaint.	unsuccessful. DOJ and the EPA contacted the Proposed Defendants in December of 2016 to discuss settlement, but were rebuffed by the proposed defendants who said that the case needs to be decided in Federal District Court. Congresswoman Mia Love and Senator Michael Lee (UT) have expressed interest in this case.
R9	U.S. & California. v. HVI Cat Canyon Inc. (Greka Oil & Gas)	CWA	Motion for Partial Summary Judgment	Joint enforcement action with State of California stemming from multiple oil spills and violations of Spill Prevention, Control, and Countermeasure provisions. Motion will address liability, not appropriate relief.	March 15, 2017	Discovery ongoing. Trial date June 2017.
R10	U.S. v. William Case et al.	CWA	Motion for Summary Judgment	United States will likely file a MSJ re liability against defendants – i.e., that defendants discharged pollutants (thousands of tons of imported rock) from a point source (bulldozers and other earthmoving equipment) into waters of the United States (below the ordinary high water mark of the North Santiam River, Oregon) without a CWA permit.	Early March 2017	
R10	U.S. v. Eric Klock and Bobby Wolford Trucking	CWA	Complaint	CWA 404 judicial enforcement case regarding unauthorized discharges of dredged and fill material. We are in negotiations with both parties and have tolling agreements in place with both parties – current tolling period ends February 20, 2017	Feb 20, 2017	Defendant Klock entered into new tolling agreement, extending the tolling period until August 21, 2017. Defendant Wolford has not responded to requests for extending the current tolling agreement. If Wolford will not sign extension to the tolling agreement, we will file

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						a complaint.

CATEGORY 5 – Administrative cases to with penalty over $500K expected to be settled in next 90 days

Region /Office	Case Name	Statute	Brief Description	Penalty	Expected Date	Other
HQ	Atlantic Trading & Marketing, Inc.	CAA	Atlantic Trading & Marketing, Inc. is a Houston-based, subsidiary of Total S.A. that trades and ships crude oil and refined products. The EPA is nearing the end of negotiations to resolve alleged violations of gasoline benzene, VOC reduction, and volatility requirements, as well as violations of a number of reporting requirements. EPA will seek a waiver from DOJ to resolve this case via an administrative Consent Agreement and Final Order (CAFO).	$1.28 million	Within 90 days	$150,000 gas can replacement mitigation project to offset excess VOC emissions.
HQ	Whole Foods Market Group, Inc., et al.	RCRA	Consent agreement and final order resolving violations for the mismanagement of hazardous waste.	$500,000	Approval by Environmental Appeals Board expected Feb. 2017	$2.75 million SEP. Whole Foods approached EPA to seek this national settlement.
R1	Cutler Naval Air Station	CAA	EPA and DoD (Navy) have reached agreement on penalty amount for violation of NESHAPs. Agreement finalized in principle except for one issue regarding interest on late payments.	$811,000	Feb. 28, 2017	
R3	PennDOT	CWA	Numerous storm water violations.	$573,661	Uncertain; negotiation may have broken down	
R4	Great Lakes Dredge and Dock, LLC (GLDD)	MPRSA	95 violations occurred, including excessive leakage and misdumps, with respect to the transport of dredged material associated with Phase 3 of the Miami Harbor Construction Operation. The operations have been completed. Based on show cause letter, discussions with GLDD have started.	>$500,000 (estimate)	April 2017	
R5	Nufarm Americas, Inc.	RCRA, FIFRA, EPCRA	Preparing a Notice of Intent to File a Complaint letter for RCRA (failure to get a permit for storage of hazardous waste), EPCRA (failure to provide information), and FIFRA (failure to get proper approvals for product ingredient) violations discovered during a multi-media inspection. The letter and penalty amount are still in draft, but penalty is likely to be over $500,000.	>$500,000 (estimate)	April 2017	

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R6	Macys	RCRA	Consent Agreement and Final Oder to address violations of the requirements for hazardous waste generators.	$3.1 million (approx.)	March 31, 2017	
R6	Thomas Petroleum	EPCRA	Consent Agreement and Final Order to address violations of EPCRA Toxic Release Inventory reporting requirements	$2 million (approx.)	April 29, 2017	

CATEGORY 6 – Other actions with sensitive or significant issues (e.g., ISE orders, press or congressional interest, precedential issues, etc.)

Region /Office	Case Name	Statute	Type of Action (compliance order, complaint, ISE order)	Brief Description	Proposed Penalty	Other Relief Sought	Expected Date	Reason for inclusion
HQ	Syngenta Seeds, LLC d/b/a Syngenta Hawaii, LLC	FIFRA	Complaint filed in Dec. 2016	Respondent misused a restricted-use pesticide in violation of FIFRA and the Worker Protection Standard when Respondent exposed a group of its workers on Jan. 20, 2016 to the pesticide resulting in ten workers being hospitalized. Case was referred to EPA by the state for enforcement and is being jointly managed by HQ and R9. Recently on Jan. 12, 2017 another incident occurred at the same facility with worker exposers to the same pesticide. These new allegations are currently under investigation.	$4.893 million		Ongoing	Penalty >$500,000. Press release was issued when Complaint was filed. Case has significant public interest and attention and continues to play in the press.
HQ	Magnolia Homes	TSCA	Complaint (being drafted)	Magnolia Homes televises renovations on HGTV. Many of the episodes contain footage of practices that violate TSCA and its implementing lead-based paint regulations. Complaint to be filed within 45 days of conclusion of unsuccessful settlement negotiations.	$795,000		Expected within next 45 days	High-profile respondents and press release to be issued with filing of complaint may draw media attention.
HQ	Koch Supply & Trading	CAA	Potential complaint	Koch Supply & Trading (KST) produced three batches of fuel in March 2012, at its Pasadena, Texas, facility, that exceeded the per-gallon gasoline sulfur standard.	~$740,000		Statute of limitations issues in March 2017	Unless there is significant movement by Koch, gap between penalty demand and counteroffer likely means we will

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								recommend filing a complaint by March 2017. KST's current counter-offer is $193,000.
HQ	JP Morgan Chase	EPCRA, CWA, RCRA CAA	Consent agreement and final order	Self-disclosure with over 100 facilities, EPA is still waiting for more information from the company, so this may be more than 90 days out from settlement.	<$500,000, but over $100,000		Possibly within 90 days	No press planned, but this case will likely receive media attention because of the prominence of the respondent.
R1	U.S. v. Nelson	CWA	DOJ filed complaint on Dec. 5, 2016. Answer due Marcy 13, 2017.	Discharge of dredged and fill material into 104.7 acres of wetlands at a dairy farm without a permit. Defendant had been told by the Army Corps that a permit was needed.	Not determined	Restoration		Large wetlands case.
R2	Chemung County Sewer District, NY	CWA	Administrative Compliance Order	Failure to comply with NY State Pollutant Discharge Elimination System (SPDES) permit. Order will require development of sanitary sewer collection system operation and maintenance (O&M) procedures.	N/A		Issued Feb. 2017	Municipal entity might reach out to elected officials
R2	Chemung County Elmira District, NY	CWA	Administrative Compliance Order	Failure to comply with NY SPDES Permit combined sewer overflow (CSO) best management practice (BMP) requirements. Order will require compliance with CSO BMPs pursuant to the permit.	N/A		Issued Feb. 2017	Municipal entity might reach out to elected officials.
R2	Saunders Concrete Companies, NY	CWA	Administrative Compliance Order	Failure to comply with the NY SPDES Multi-Sector General Permit for Stormwater. Order will require implementation of Stormwater Pollution Prevention Plan (SWPPP) required by MSGP and certification that SWPPP is fully implemented.	N/A		Issued Feb. 2017	Respondent is small business who might reach out to elected officials.
R2	Albany Steel, NY	CWA	Administrative Compliance Order	Failure to comply with the NY SPDES Multi-Sector General Permit for Stormwater. Order will require submission of Stormwater Pollution Prevention Plan (SWPPP) and certification that SWPPP is fully	N/A		Issued Feb. 2017	Respondent is small business who might reach out to elected officials.

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				implemented.				
R2	Cha-Liz Farms, LLC (West Chazy, NY)	CWA	Administrative Compliance Order	Failure to comply with the NY SPDES Concentrated Animal Feedlot Operations (CAFO) permit. Order will require maintenance of required records, required inspections, manure analysis, and operation and maintenance of the treatment area as required by permit and nutrient management plan.	N/A		Issued Feb. 2017	Farm owner might reach out to elected officials.
R2	Ben Weitsman of Syracuse (NY)	CWA	Administrative Compliance Order	Failure to comply with the NY Multi-Sector General Permit for Stormwater. Order will require facility to implement a corrective action plan to address their reported benchmark limit exceedances.	N/A		Issued Feb. 2017	Respondent is small business who might reach out to elected officials.
R2	Rosendale WWTP, NY	CWA	Administrative Compliance Order	Failure to comply with the Wastewater Treatment Plant's SPDES Permit. Order will require development and implementation of a corrective action plan to address permit limit exceedances, and proper operation and maintenance of the treatment plant and disposal system.	N/A		Issued Feb. 2017	Municipal entity might reach out to elected officials.
R2	Dunkirk Special Steel (Dunkirk, NY)	CWA	Administrative Compliance Order	Failure to comply with their NY SPDES Multi-Sector General Permit for Stormwater. Order will require development and implementation of a corrective action plan to address industrial user permit limit and benchmark limit exceedances.	N/A		Issued Feb. 2017	Respondent is small business who might reach out to elected officials.
R2	Wells College, NY	SDWA	Administrative Compliance Order	Failure to comply with the drinking water maximum contaminant level for total trihalomethanes. Order will require submission of a corrective action plan to resolve violation.	N/A		Issued Feb. 2017	Case involves violation of a drinking water health based standard. Also, Respondent is an educational institution that might reach out to elected officials.
R2	Toa Alta Landfill, PR	RCRA	Imminent and substantial endangerment	Unilateral order will require cessation of waste acceptance at this MSW landfill within the year and interim closure, as well as actions to address	N/A		March 2017	Municipal entity might reach out to elected officials. Briefed and

			order	leachate and stormwater.				cleared to proceed.
R2	Town of Binghamton (NY)	CWA	Administrative complaint	Failure to comply with NY SPDES Storm Sewer Permit (MS4) by failing to develop and implement the required Stormwater Management Program.	$21,500		February 2017	Municipal entity might reach out to elected officials.
R2	Village of Stillwater, NY	SDWA-PWSS	Administrative Compliance Order	Failure to comply with public education and consumer notice requirements of the Lead and Copper Rule following a lead action level exceedance. Order will require distribution of public education and consumer notice.	N/A		Issued Feb. ___ 2017	Case involves a small municipality and the Lead and Copper Rule.
R2	Stillwater Water District #1, NY [this is a separate public water system from the one referred to in the row immediately above]	SDWA-PWSS	Administrative Compliance Order	Failure to comply with public education and consumer notice requirements of the Lead and Copper Rule following a lead action level exceedance. Order will require distribution of public education and consumer notice.	N/A		Issued Feb. ___ 2017	Case involves a small municipality and the Lead and Copper Rule.
R2	Culebra Landfill, PR	RCRA	Imminent and substantial endangerment order	Order will require municipality to: submit a closure plan for its MSW landfill and to close the landfill by a set schedule; make certain operational improvements in the meantime; and implement a municipal recycling program. We are seeking to issue the order on consent but it is possible we may need to issue it unilaterally.	N/A		March 30, 2017	Municipal entity might reach out to elected officials.
R2	City of Hudson, NY	CWA	Administrative Compliance Order	Failure to comply with NY SPDES Permit combined sewer overflow (CSO) best management practice (BMP) requirements. Order will require compliance with CSO BMPs pursuant to the permit.	No penalty		Feb.-March 2017	Municipal entity might reach out to elected officials.
R2	Village of Coxsackie, NY	CWA	Administrative Compliance Order	Failure to comply with NY SPDES permit. Order will require development of sanitary sewer collection system operation and maintenance procedures.	No penalty		Feb.-March, 2017	Municipal entity might reach out to elected officials.
R2	Valdespino & Associates Builders, Inc.	CWA	Compliance Order	Case involves unauthorized discharges of dredged/fill material in tidal wetlands adjacent to Heady Creek in the Shinnecock Indian Nation Territory in New York. The order would require removal of the fill. We are waiting for an overdue	N/A		March 2017	Wetlands issues can be sensitive, and this case has the added complication of an Indian nation being

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				response to an information request to determine if Valdespino is the appropriate Respondent.				involved.
R3	Bloom Energy	RCRA	Information Request	Issue with identification of hazardous waste.		Information request.		Waste identification issues at multiple facilities.
R3	TMK IPSCO (Monaca, PA)	TSCA	Consent Agreement and Final Order	Failure to label combustible materials.	$28,053		Imminent	Settlement terms have been reached and final settlement documents are awaiting RJO's signature.
R3	Fietleson Building Phillip Chan	CAA	Administrative Compliance Order	Based on a tip, bags of asbestos waste was found illegally disposed of inside of building walls.	No penalty for this phase of the enforcemen t matter. Penalty may be addressed in the future.	Order will require wetting and proper disposal of this material		CAA Compliance orders may be sensitive. This action is planned to be issued within the next week
R3	Washington Navy Yard	RCRA, CAA	Consent Agreement and Final Order (Administrative penalty)	Settlement documents to be signed by the Navy.	$84,100			Signed CAFO should arriving to EPA within next two weeks.
R3	Magnesita Refractories (York, PA)	TSCA	Administrative Penalty Order/Consent Agreement and Final Order	Improper/incorrect reporting.	$62,075		Unknown	Initial CORE TSCA matter post TSCA reform. "Show Cause" letter in concurrence for signature. On Monday, February 6 the "Show Cause" letter for this matter was

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								mailed to Respondent. Reporting violations alleged.
R3	Honeywell (Hopewell, VA)	CAA	Enforcement of Consent Decree-potential stipulated penalties	Failure to install low leak certified		Not determined but potentially over $1 million	TBD – potentially	Stipulated penalties over $1million per instructions.
R3	Whites Coal Services	RCRA	Delivery Prohibition ("red tag").	The facility's underground storage tank is currently out of compliance with Financial Assurance requirements.		None	Two months	This is the first time the Region will exercise its delivery prohibition authority.
R3	Hubert H. Humphries Building (HHH) (operated by the Department of Health and Human Services)	SDWA	1414 unilateral compliance order	Region 3 plans to issue a Safe Drinking Water Act (SDWA) compliance order to Health and Human Services for violations at the Hubert H. Humphrey (HHH) building in Washington, D.C. EPA Region 3 has direct implementation authority over public water systems (PWSs) in Washington, DC. The HHH building is a PWS, effective Sept. 19, 2016, because it provides treatment to water provided to customer. EPA directed the PWS in a July 11, 2016 letter to install disinfectant treatment prior to October 31, 2016. Disinfectant was not added in the HHH building to provide minimum residual disinfectant concentration at the entry point or within the distribution system for November and Dec. 2016 and Jan. 2017. Failure to disinfect drinking water is a public health risk for the customers. Additionally, PWSs must develop monitoring plans and conduct monitoring, and submit results to EPA. The HHH PWS did not develop acceptable plans for disinfectant	No penalty is proposed at this time.			

				byproducts, lead and copper, and coliform bacteria, and did not properly monitor for nitrates and nitrites in 2016.				
R4	Wayne Smith	CWA	Administrative Order on Consent (AOC)	Unauthorized conversion of 69.5 acres of forested wetlands to agriculture, and ditching with side cast. Respondent provided a restoration plan and wants to restore the impacted to areas to forested wetlands. AOC issued to Respondent for signature on February 7, 2017.	TBD	Site restoration.	Feb., 2017	
R4	Seal Shield, Inc	FIFRA	Administrative case	Alleged violations in this case concern pesticides subject to FIFRA Section 3 registration and misbranded devices subject to Labeling Requirements for Pesticides and Devices pursuant to FIFRA.	$1 million (estimate)		TBD	Show cause meeting postponed from Feb. 1, 2017. The company indicated that it may be requesting information regarding the case via a FOIA. Further, the company is expected to disagree with the penalty.
R5	Pagel's Ponderosa, LLC Ebert Dairy Enterprises, LLC Kinnard Farms Inc. Dairy Dreams, LLC EL-NA Farms, LLC Heims Hillcrest Dairy, LLC Central Sands Dairy, LLC	CWA	Information Request	Information collected to allow evaluation of the compliance with the facility's, permit required, nutrient management plan (NMP). The facility is a large concentrated animal feeding operation in an area with nutrient and/or pathogen impaired surface waters. The evaluation is part of a joint effort with the state to address potential causes of pollution of water supplies and numerous citizen complaints.	None	None	Jan. 2017	Potential press or congressional interest. These requests are in response to citizen complaints and that we are coordinating closely with the state.

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R5	U.S. v. City of Flint, Michigan; Michigan Department of Environmental Quality; and the State of Michigan	SDWA	Imminent and Substantial Endangerment emergency order	On Nov. 17, 2016, EPA Region 5 issued an amendment to its Jan. 21, 2016 emergency order. The Jan. order specified actions that needed to be taken to address lead contamination of the water supply and address significant operational deficiencies with respect to the water system. The November amendment focuses on what actions must be completed for the City of Flint to transition to its new, permanent water source so that it provides safe and reliable drinking water to Flint residents.	In the event Respondent s violate, fail or refuse to comply with any of the terms or provisions of this Order, EPA may assess a civil penalty of up to $21,500 per day of violation under SDWA			This is an imminent and substantial endangerment (ISE) finding that includes the State as a Respondent. The State has objected to the ISE finding but is working cooperatively with the City to comply with the Order requirements.
R5	City of Blaine, MN	CWA	Consent Agreement and Final Order and 309(a) Order	EPA and Respondent have agreed in principle to a 309(a) Order and a Consent Agreement and Final Order which will resolve the alleged CWA violations. In Aug. 2014, Respondent discharged pollutants into jurisdictional wetlands at two locations in Blaine, Minnesota, without a U.S. Army Corps of Engineers permit.	$20,000		Respondent ready to sign 309(a)	EPA and the City agreed to mediation in an attempt to resolve the matter. A mediator, Judge M. Lisa Buschmann, indicated to the parties that a $20,000 civil penalty and the wetland mitigation acreage were more than fair and reasonable.
R6	Texas Westmoreland Coal, Jewett 32G area	CWA	Administrative Order on Consent	This action is to address one mining unit within the much larger Jewett Coal mine, Unit 32G, which never received a 404 permit, while all the other	N/A		Draft AOC is pending. Texas Westmoreland	CWA Wetlands

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				mining units (save one other) have received. The mine is working with EPA to resolve the permitting issues.			is asking to move forward with action to resolve long term permitting issues	
R6	Texas Westmoreland Coal, Jewett 47A area	CWA	Administrative Order on Consent	This action is to address one mining unit within the much larger Jewett Coal mine, Unit 47A, which never received a 404 permit, while all the other mining units (save one other) have received. The mine is working with EPA to resolve the permitting issues.	N/A		Draft AOC is pending. Texas Westmoreland is asking to move forward with action to resolve long term permitting issues	CWA Wetlands
R6	EOG Resources, Inc.	CWA	Cease & Desist AO	Order requiring the operator to cease discharges of pollutants and apply for permit coverage if needed.	None	Take action to prevent discharges or obtain permit coverage	March 1, 2017	Respondent submitted a response dated Jan. 27, 2017 contesting violations. Currently making efforts to resolve.
R6	Mr. Rennick	SDWA	Letter	Injection well considered inactive. Authorization to inject is terminated. Plan of action due in 30 days.				
R6	Rhodia/EcoServices	CAA	Stipulated Penalties	Stipulated penalty transmittal letter to DOJ	$625,000			Significant stipulated penalty demand
R6	Monarch Waste Technologies	CAA	Applicability Determination	Request for exemption from medical waste incineration requirements; on Nambe Pueblo	N/A	N/A	Feb. 23, 2017	
R6	ExxonMobil Baton Rouge	CAA	Stipulated Penalties	Demand letter for stipulated penalties	$82,500		Feb. 21, 2017	
R6	Total	CAA	Stipulated Penalties	Demand letter from DOJ for stipulated penalties accrued under refinery CD.	$400,435		Feb. 21, 2017	Significant stipulated penalty demand
R6	Sea Eagle	CAA	AOC	Tilden, TX	none	Flaring	Feb. 24, 2017	Energy extraction flaring

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						operational improvements		violations
R6	U.S. and Colorado, Louisiana, New Jersey, Oklahoma and Texas v. Valero Refining Company, et al. and Tesoro Refining and Marketing Corporation	CAA	U.S. position on a matter that is being addressed under the dispute resolution provisions of a consent decree.	In 2005 the court issued a Consent Decree in this Clean Air Act case that enforced requirements at a refinery including new source review and prevention of significant deterioration requirements (NSR/PSD), leak detection and benzene. Valero now seeks termination of the Consent Decree in accordance with termination and dispute resolution provisions within the CD. The parties are in negotiations. On Jan. 24, 2017, EPA sent Valero a proposed settlement offer regarding the 3 outstanding issues in dispute. Under the CD's dispute resolution provisions, the U.S. is due to submit its views on these issues by February 28, 2017. After that submittal, Valero has 45 days to file a petition with the court describing any remaining dispute.			Feb. 28, 2017	
R7	Chariton, Iowa	SDWA	Compliance Order on Consent	EPA will initiate negotiations for a compliance order to address long term compliance items related to inadequate disinfection and high turbidity. EPA action was informally requested by Iowa Department of Natural Resources (IDNR), the agency with SDWA primacy for these violations.				Action could invite press and/or congressional interest.
R7	Blackbird Casino	SDWA	Compliance Order on Consent	EPA is negotiating an administrative compliance order to address the facility's failure to address significant deficiencies identified in 2013 DW Sanitary Survey (prepare Operations and Maintenance Manual).			EPA anticipates Blackbird's signature on the ACO at any time.	Tribal drinking water
R7	Magellan	CAA	Judicial referral	EPA referred this case to DOJ on June 28, 2016. It involves violations at three of its bulk gasoline terminals – two in Kansas and one in Iowa. During inspections at two of these facilities, EPA used a	TBD	Require purchase of FLIR camera at facility;	TBD; still awaiting additional information	Case could create precedential case-law; involves the oil/gas industry. Region 4 will

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				FLIR (forward looking infrared) camera and detected excess emissions of VOCs, which is a violation of the Kansas state implementation plan (SIP), the New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAPs). These violations also demonstrate a failure by Magellan to operate its facility in a manner consistent with good air pollution control practice.		replace existing vapor combustion unit; convert existing floating roof tanks to domed external floating roof tanks.	from company (negotiations with company have not yet begun)	join on this referral for similar violations at three of their Magellan facilities. Projected as a potential national settlement.
R7	Holly Frontier	CAA, 112(r), EPCRA	Judicial referral / ongoing prefiling negotiations	EPA referred this case to DOJ in May 2015 (for CAA) and December 2015 (for 112(r)). It involves opacity, NESHAP, RMP, and EPCRA violations at Holly Frontier's El Dorado, KS refinery. Violations also demonstrate a failure by Holly Frontier to operate its facility in a manner consistent with good air pollution control practice.	$5 million	New flare; 3rd party compliance audits; electronic notification of visible emission events; inspections; etc.	Negotiations ongoing	Case could create precedential case-law; involves refinery sector.
R7	Big Ox Energy	CWA, CAA	Coordinating with state of Nebraska to determine lead and follow up actions on documented compliance concerns.	Big Ox is a waste to energy facility located in South Sioux City, Nebraska. OSHA investigations conducted after several injuries at the facility confirm hydrogen sulfide played a part in one or more of the accidents. Since beginning operations in October 2016, 26 households were displaced from their homes when sewer gases containing hydrogen sulfide lines entered their homes. These homes were connected to sewer lines adjoining lines receiving the BOE discharge. As of Feb. 6, 12	N/A	Further action may be needed to resolve EPA requests for information.	Big Ox initially denied access to EPA inspectors on Feb. 13, 2017; but then granted access on Feb. 15, 2017. Region 7 proposed a	Company contacted the governor's office on February 8th to request a meeting with Governor Ricketts, NDEQ, EPA and State Senator Albrecht. Significant press interest.

				households remained out of their home due to lingering odors in the homes. R7 has already conducted a CWA inspection of the facility and formally requested information pursuant to CWA and CAA authorities. EPA conducted mobile ambient air monitoring (GMAP) on Jan. 11th, which indicate air emissions of H2S are likely coming from the Big Ox facility. EPA and NDEQ conducted an inspection beginning Feb. 15th to assess Big Ox's compliance with CAA 110 and 112(r).			meeting with the company and NDEQ for March 9, 2017 to discuss multimedia compliance concerns.	
R7	Clare-Mar Camp, Inc.	CWA	Unilateral Administrative Order	EPA plans to issue a unilateral administrative order to Clare-Mar, a campground in New London, Iowa that land applied raw sewage from RV trailers and camp bathroom facilities to a grass area adjacent to its campground in violation of biosolid regulations. In April 2016, EPA sent Clare-Mar a draft Compliance Order on Consent with a letter inviting Respondent to negotiate the term. To date, Clare-Mar has not contacted EPA to discuss the terms of the proposed Order.			Week of Feb. 20, 2017	
R7	Ronald Fricke Livestock	CWA	Unilateral Administrative Order	EPA plans to issue a unilateral administrative order to Ronald Fricke Livestock, a medium concentrated animal feeding operation. A recent EPA inspection and sampling revealed violations of the CWA in that the facility was discharging pollutants into a nearby stream.	N/A	N/A	Week of Feb. 20, 2017	
R8	Wind River Transfer Station (solid waste)	RCRA	Imminent and Substantial Endangerment (ISE) Order	Potential RCRA 7003 ISE Order with Northern Arapaho and/or Eastern Shoshone Tribes to address imminent and substantial endangerment created by mismanagement of solid waste outside transfer stations within the exterior boundaries of the Wind River Reservation. EPA continues to	none		Consultation letter to each tribe: March 2017.	ISE order; Tribal governments.

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				evaluate evidence and is working to determine ownership of affected lands.				
R8	Winona Inn, LP	SDWA	To be determined. Likely either penalty and injunctive relief, or Imminent and Substantial Endangerment (ISE) order	Hotel the Black Hills, South Dakota, using a failing high capacity septic system. Their public water system wells have exceeded total coliform limits.	Not determined.	Abate potential threats to public drinking water source.	March 2017	Likely small business. Went through bankruptcy in 2012. The Region has been and will continue to coordinate with SDDENR and Pennington County
R8	Frostwood F6 Townhomes David Jacobsen Construction	CWA	Unilateral Administrative Order	On August 31, 2016, R8 inspected the Frostwood F6 Townhomes construction site in Park City, UT. Multiple violations of a stormwater permit were observed. Because subsequent negotiations to enter into an Administrative Order on Consent have been unsuccessful, R8 plans to issue an Administrative Order to Frostwood 6 LLC (owner) and David Jacobsen Construction (operator) requiring compliance with the construction stormwater permit.	To be determined at a later date.		Late February, or early March 2017	Inspection conducted as part of a workshare agreement with the Utah Division of Water Quality. Utah DWQ has been notified of the action.
R8	City of Louisville, CO	CWA	Administrative penalty action	Failure to implement approved pretreatment program, including violations of the City's manganese limit in its NPDES permit, and failure to: report manganese violations caused by industrial discharges from the City's drinking water treatment plants (DWTPs); identify the City's DWTPs as significant industrial users (SIUs); investigate noncompliance by the DWTP; control the discharges from the DWTPs.	Bottom line of approximately $52,000-70,000	None.	March 2017 for public notice	Municipality Administrative order on consent issued on March 7, 2014. EPA, rather than the Colorado Department of Public Health and Environment, has taken this action because Colorado does not have primary enforcement authority for the pretreatment program.
R8	CDOT MS4	CWA	Administrative	An inspection was conducted March 30 – April 2,	To be		April 2017	State agency

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			Order on Consent	2015. Although CDPHE inspectors attended portions of the inspection, the inspection was led by EPA. Numerous deficiencies and permit violations were identified including inadequate resources, and failure to: train staff; develop required procedures; ensure contractors comply with the state Construction General Permit; enforce on contractors as required; have a complete inventory of post-construction water quality control features (>1,000 features); and maintain post-construction water quality control features.	determined at a later date.			CDPHE and CDOT are aware of the action, and CDPHE is supportive.
R9	Grindstone Rancheria	SDWA	ISE Order	The Rancheria is a small Indian tribe located in northern California. The Tribe's water system takes water from a local creek, but the Tribe is unable to properly operate or maintain its treatment plant, resulting in total coliform being present throughout the distribution system. Region 9 wants to issue a SDWA Section 1431 imminent and substantial endangerment order to the Tribe to take steps to address the violations and to provide adequate boil notices and make alternative drinking water supplies (e.g., bottled water) available to residents.	None		Mid-March 2017	
R10	Nooksack Tribe -- Public Water Systems (Non-compliance SDWA) -- Washington	SDWA	Six unilateral compliance orders	Region 10 is initiating consultation with OECA to issue six unilateral compliance orders to the Nooksack Indian Tribe for Drinking Water Violations under the Safe Drinking Water Act. Six Public Water Systems owned and operated by the Nooksack Tribe are in substantial violation of the drinking water requirements. Violations include Nooksack's failure to (1) complete required monitoring for certain drinking water contaminants; (2) failure to correct significant deficiencies identified at the systems following on-site sanitary surveys; and (3) failure to notify system customers about these violations.	None	Injunctive relief to include contaminant monitoring at each public water system, remedy of significant deficiencies	March 2, 2017, as the target signature/ date of issuance, contingent on OECA concurrence	Expect to send Letter notifying Nooksack Tribe of plan to issue UAOs as a first step in issuing Orders. Issuing Unilateral Administrative Orders to a Tribal government requires the concurrence of the Assistant Administrator,

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				Some significant deficiencies are more immediate health threats such as drinking water well within 100 feet of septic tanks.		at each public water system, and notice to the customers of each drinking water system regarding these issues with their drinking water.		OECA prior to issuance by the Region.
R10	Department of Defense Joint Base Elmendorf (JBER) Richardson--Alaska	RCRA	Consent Agreement and Final Order or complaint	Region 10 has been negotiating for seven months with the Air Force regarding violations of RCRA. Violations include storing hazardous waste without treatment, storage and disposal permit and not making proper waste determinations. The order currently being negotiated would resolve those violations. If DOD is unwilling to commit to the terms of settlement, next step would be to file an administrative complaint.	$81,300	SEP (install LED lighting at a cost of approximately $200,000)	Approx. Feb. 17, 2017	Includes a SEP. All respondents have signed the consent agreement final order and it is now circulating for EPA and Regional Judicial Officer signature.

ENFORCEMENT CONFIDENTIAL * DO NOT DISTRIBUTE
Consolidated Regional Non-CERCLA– Enforcement Sensitive/Deliberative – Do Not Release (DATE – March 1, 2017)

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Region 1
Weekly Report 05/12/2017

Hot Issues

Final NPDES Permit for Adams, MA Waste Water Treatment Plant to issue

Region 1 plans to issue a final NPDES permit for the Adams, MA wastewater treatment plant next week, replacing the existing permit that expired in 2010 but is still in effect. The permit will allow the town to continue to discharge to the Hoosic River in western MA.

The draft permit was open to public comment in November, 2016, and the only commenter was the Hoosic River Watershed Association. Their comments primarily urged further EPA and state actions to protect the existing cold water fishery. However, EPA determined that no effluent limits or schedule changes were necessary, as the limits and conditions in the draft were already stringent enough to support the fishery.

EPA is the NPDES permit authority in Massachusetts. MA DEP has co-signed the final permit, so it will operate as a separately-enforceable state permit.

Upcoming Public Events

May 23—Region 1 will conduct its annual briefing for New England congressional staff. The popular event includes presentations on region-wide issues and state breakout sessions. This year, we are adding a panel discussion with FEMA, HUD, and the Army Corps.

May 23—Region 1 will conduct a public meeting and open house with Stratford, CT residents to update the public on EPA's progress since we issued the cleanup decision last year, and to let them know what to expect in the coming months as we gear up to begin the remediation. The meeting is in collaboration with CT DEEP, CT DPH, and the Stratford Health Dept.

Upcoming Major Decisions

None this week.

Last Week Highlights

EPA finalizes package to delete Shpack Landfill site from NPL

On May 9th, EPA finalized the deletion package for the Shpack Landfill site in Norton/Attleboro, MA by signing the Notice of Intent to Delete and a Notice of Deletion.

The cleanup involved the excavation and off-site disposal of over 75,000 tons of contaminated soil and debris as well as the extension of a public water supply to nearby residences.

The Town of Norton plans to provide for passive recreational use of the property via walking trails.

The deletion notices will be published in the Federal Register. On the publication date, Region 1 will issue a press release and a notification in local publications of its intent to delete the site and the beginning of the comment period.

Region 1 to discuss Ash Street Tannery removal action soil screening results with residents

During the week of May 15, Region 1 staff will begin visiting residents in Danvers, MA to discuss soil screening results at the former Ash Street Tannery site, in anticipation of developing an action memorandum to clean up residential properties.

EPA is coordinating with local, state and federal health officials. The site was referred to EPA by the MA DEP in November of 2016.

In the early 1900s, dredge spoils from a pond were spread across the neighborhood, prior to the construction of homes. At least 16 residential properties, including a 17-unit condominium complex, have levels of arsenic, chromium, and lead above residential Removal Management Levels.

A public meeting is proposed for June, 2017.

Region 1 Issues Comfort Letters to Prospective Purchaser Near Coakley Landfill Superfund Site.

EPA issued two comfort/status letters on May 5, 2017 in connection with the private sale of property near the Coakley Landfill Superfund Site in Portsmouth and Rye, NH.

The letters were requested by the current lienholder and the prospective purchaser to facilitate the financing and purchase and sale of the property. NH DES is the supporting agency on this site.

Region 2
Weekly Report

Upcoming Hot Issues and Important Deadlines

- Four Superfund Proposed Plans to be issued during May, 2017. Region 2 is preparing to issue proposed cleanup plans for three Superfund sites in New Jersey and one in New York. The Matteo site in Gloucester County, NJ, is the location of a former battery cracking and lead reclamation facility. In addition to extensive contamination on the former factory site, large amounts of battery casings where dumped onto a nearby property that was later developed into a residential community, causing extensive lead contamination there as well. The Mansfield Trail Dump Site in Byram, NJ was used for dumping of hazardous solvents including TCE, which has contaminated the drinking water wells of nearby residences. The Diamond Head Oil site in Kearny, NJ was a former used oil reclamation facility, from which oily wastes were routinely discharged onto the ground and into surrounding wetlands. The Peninsula Boulevard site in Hewlett, NY involves a plume of PCE contaminated groundwater moving in the direction of a municipal drinking water supply well. All four proposed cleanup plans are expected to be issued before the end of May.

Upcoming Major Public Events – None planned next week.

Past Week Accomplishments

- 21st Annual Region 2 Indian Nation Leaders Meeting was held in Syracuse, NY, May 9-11. Leaders from the eight federally recognized Indian nations within Region 2 met with senior Region 2 leaders to discuss a wide range of issues of mutual interest.
- Interagency meeting held May 9 on cleanup & restoration of the Marin Pena Canal in San Juan, Puerto Rico. The meeting was held at the invitation of PR Resident Commissioner Jennifer Gonzalez (non-voting, elected member of Congress). The meeting included officials from EPA Region 2, the U.S. Army Corps of Engineers Jacksonville District, and the PR Commonwealth government. The Canal is heavily polluted and clogged; the Corps plans to dredge the waterway, which would be a major infrastructure project with great environmental benefit The purpose was to discuss next steps for the project.
- Settlement of claims against Del Valle Group for Violations of CWA. On 4/27 Region 2 finalized and a consent order resolving a claim that the company discharged pollutants into the water without a NPDES permit. The discharges were from construction of an amusement park in Puerto Rico (which is not delegated to administer the NPDES program). An earlier stage of the settlement led to a reduction of an estimated 946,176 pounds of sediments reaching the nearby surface water. As part of the settlement the company agreed to pay a civil penalty of $42,000.

Region 3

Weekly Report 05/12/2017

Hot Issues

Wallops Island

Update: Current sampling data shows the NASA water supply and the Town of Chincoteague (TOC) water supply do not contain detectable levels of PFOA or PFOS. NASA is prepared to supplement the TOC water supply which may not be adequate for peak season demand because 3 shallow production wells contaminated with PFOA and PFOS were removed from service. The connection from NASA water supply to the TOC is ready for use; a formal agreement is expected in the near future. Samples collected between the NASA fire training area (a known source of groundwater contamination) and a residential community west of the facility contained only traces of PFOA and PFOS. This week samples were collected from wells at the Trails End Campground and drinking water wells on a farm adjacent to the facility. EPA and VADEQ meeting with NASA next week to plan permanent perimeter wells which will be used for long term groundwater monitoring.

UPDATE - CONFIDENTIAL - U.S. District Court for the Southern District of West Virginia denies EPA's motion for stay pending appeal of the district court's order directing EPA to approve or disapprove the "constructive submission" of "no" TMDLs for 573 biologically impaired waters in West Virginia

Key Message: Disapproving the "constructive submission" will take away West Virginia's discretion in establishing TMDLs and will require EPA to establish approximately 500 TMDLs with limited resources. Currently, Region 3 has only $250K for all TMDL work. EPA is appealing the District Court's decision and order and requested a stay pending appeal.

• On February 14, the District Court granted summary judgment, in *Ohio Valley Environmental Coalition v. McCarthy,* holding that WVDEP's deferral of TMDL development amounted to a constructive submission of "no" TMDLs for 573 biologically impaired waters in West Virginia, triggering a mandatory duty under Section 303(d) of the CWA for EPA to approve or disapprove the "constructive submission." In its order as amended, the district court ordered EPA to comply by 14 days after the Court of Appeals acts on EPA's motion to stay pending appeal.

• The 573 biologically impaired waters included certain waters identified by WV as having impaired biological communities due to elevated levels of ionic toxicity (conductivity).

- Motion to Stay District Court's Order Pending Appeal: On April 4, 2017, EPA filed a motion to stay the district court's order pending completion of the appeal. On May 2, 2017, the district court denied EPA's motion to stay.
    - On May 8, 2017, EPA filed a motion to stay pending appeal of the district court's order with the Fourth Circuit. Plaintiffs' response is due May 15, 2017 and EPA's reply is due May 22, 2017.
    - If the Fourth Circuit denies EPA's motion to stay, EPA will need to approve or disapprove the constructive submission of no TMDLs for 573 waters as early as June 5, 2017.
- Appeal: On April 4, 2017, EPA filed a notice of appeal of the district court's decision and order to the Fourth Circuit Court of Appeals. The appellate briefing schedule is:
    - Joint Appendix due May 31, 2017
    - EPA's opening brief due May 31, 2017
    - Plaintiff's response brief due June 30, 2017
    - EPA's reply brief due July 14, 2017

Region 3 Employee Receives National Association of Water Companies Award

Patti Kay Wisniewski is this year's recipient of the James McGirr Kelly Award for Excellence. This is the highest honor bestowed by the National Association of Water Companies – Pennsylvania Chapter. The award is presented each year to the person who most exemplified dedication to promoting the availability of safe drinking water in the Commonwealth of Pennsylvania. The award will be presented to Patti Kay tomorrow (May 9th) in Harrisburg at NAWC's Annual Meeting.

The Annual Award for Excellence was named for the late James McGirr Kelly, Senior United States District Court Judge for the Eastern District of Pennsylvania. Judge Kelly was a former member of the Public Utility Commission and former vice president of American Water Works Service Company, Inc. He was the first recipient of the award in 1983. Past award winners include three PA governors and four DEP/DER secretaries.

Local Foods, Local Places Technical Assistance Workshop Held in Martinsville, Virginia On May 2nd and 3rd, Region 3, through its contractor Renaissance Planning, hosted a 1.5-day workshop in Martinsville, VA as part of the Local Foods, Local Places program. The Local Foods, Local Places program aims to assist communities in creating walkable, healthy, and economically vibrant neighborhoods through the development of local food systems. Attendees included local community members, entrepreneurs, non-

profits, City of Martinsville officials, planning organizations, representatives from EPA's Office of Sustainable Communities and Region 3, and additional federal and state partners (USDA, HUD, ARC). Additionally, two local news affiliates ran stories on the workshop, and a staff representative from Congressman Morgan Griffith's office (9th District of Virginia) attended the community meeting. Martinsville is looking to revitalize the historic Fayette Street Corridor and transform the former Paradise Inn into a healthy hub, while improving community walkability, safety, and connectivity. The workshop featured a community tour and three brainstorming sessions to further discuss the community's values, vision, and goals. The resulting goals and action items will be developed into a community action plan. Martinsville was one of two communities in Region 3 selected for the Local Foods, Local Places program in 2017.

EPA Enters into Administrative Settlement with Pharmacia LLC for CERCLA Removal Action at Kanawha River Superfund Site. On May 10, 2017, HSCD Director Karen Melvin signed an administrative settlement and order on consent with Pharmacia LLC for a non-time-critical removal action at a portion of the Kanawha River Superfund Site in Putnam and Kanawha Counties, WV. The selection of the removal action was done in consultation with the West Virginia Department of Environmental Protection and the U.S. Army Corps of Engineers and was preceded by a years-long engineering evaluation/cost analysis (EE/CA) performed by Monsanto Company and Pharmacia under a 2004 Consent Order. The removal action will mitigate the release of the hazardous substance 2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD or TCDD), which was a by-product of a chemical-manufacturing process used by Pharmacia, then known as Monsanto Company, at a facility it once operated in Nitro, Putnam County, West Virginia. The most significant human health risks at the Site are associated with fish consumption from the Kanawha River. The State of West Virginia previously issued a fish advisory for the River because of the presence of elevated levels of TCDD found in fish caught in the River. The selected removal action will include: (1) capping of more than nine acres of contaminated sediments within a 14-mile stretch of the Kanawha River to reduce both the mobility of these sediments and the concentrations of TCDD in bioavailable sediments, (2) long-term monitoring of TCDD levels in fish caught along this stretch of the River (i.e., monitored natural recovery); and (3) implementation of institutional controls to prevent interference with any caps installed at the Site during the removal action.

Last Week Highlights

Region 3 does not have anything to highlight this week.

Upcoming Public Events

On Monday, May 15, 2017, RA Rodrigues will be meeting with the newly appointed Delaware of Agriculture Secretary Michael Scuse in Dover, DE. Topics will include the Chesapeake Watershed Agreement, Chesapeake TMDL, and any additional subjects the Secretary would like to discuss.

On Tuesday, May 16, 2017, RA Rodrigues will welcome Ken Wagner to Region 3. Management is eager to discuss our collaborative partnership with our states. Topics will include infrastructure, redevelopment of contaminated properties, and clean air implementation to name a few.

On Thursday, May 19, 2017, RA Rodrigues will be attending the Sarah's Hope event with the Mayor Catherine Pugh in Baltimore, MD. Region 3 contributed $75,000 worth of funding through the Green Streets, Green Jobs, Green Towns (G3) program to remove impervious surfaces and create a community playground and green space project at Sarah's Hope, an emergency homeless shelter for women and children in the Sandtown-Winchester community of Baltimore.

Region 4

Weekend Report 05/12/2017

Hot Issues

Kentucky Sanitation District No. 1 (SD1) Combined Sewer Overflows (CSOs) Schedule Dispute

Key Message:

Region 4 is working with OECA to schedule a briefing with the Administrator's staff concerning case strategy for addressing SD1's request to extend its current Consent Decree (CD) deadline for eliminating releases of raw sewage (sanitary sewer overflows or SSOs) and bringing its combined sewer overflows (CSOs) into compliance with the CWA.

- Asserting that the previously agreed-upon deadline of 2025 would impose an economic hardship on its ratepayers, SD1 requested an additional 21 years (2046) to complete work required by the CD. SD1 estimates the work will cost ratepayers $1.5 to $1.8 billion dollars.
- The EPA and the Commonwealth do not agree that 2046 is an appropriate extension given the threat to human health posed by the continuing CWA violations. In addition, SD1 has been unwilling to take steps to raise necessary capital for CD projects.
- The Commonwealth and the EPA have reached agreement on a counter proposal of 2039 and would like to move forward with discussions with SD1.

Hercules Incorporated (Hattiesburg, MS)

Key Message:

A settlement meeting is scheduled with Hercules LLC, DOJ, and the Mississippi Department of Environmental Quality on Tuesday, May 16th.

- This matter involves a proposed civil judicial settlement for injunctive relief and a civil penalty for hazardous waste treatment, storage, and disposal violations under the Resource Conservation and Recovery Act, 42 U.S.C. §§ 6901 *et seq.*, and the Mississippi Solid Wastes Disposal Law, Miss. Code Ann. §§ 17-17-1 *et seq.*, relating to the Hercules Incorporated (Hercules) Hattiesburg, Mississippi facility.
- Discussions will focus on the proposed Scope of Work for site-wide corrective action at their closed Hattiesburg MS facility.
- MDEQ and EPA have agreed to open negotiations with an initial penalty of $4.5 million based on Hercules' failure to obtain MDEQ and EPA hazardous waste permits for two regulated units at the facility.

- The agencies would like a global settlement resolving the penalty and proposed cleanup via a Consent Decree.
- Attorneys for Hercules while agreeing to settlement discussions have indicated that Hercules would like to do more assessment under administrative orders before agreeing to a global settlement.

Technical Systems Audit – Tennessee Division of Air Pollution Control

Key Message:

By letter dated May 9, 2017, Region 4 notified the Director of Tennessee's Division of Air Pollution Control that the EPA's April 2017 Technical Systems Audit (TSA) report contains recommendations concerning the State's ambient air monitoring system. Region 4 acknowledges the State has undertaken significant corrective action and confirmed EPA's commitment to work expeditiously with the State to identify and clarify the status of all audit findings.

Upcoming Public Events

Middle Georgia Clean Air Coalition (MGCAC) Press Event

Key Message: Region 4 will attend the MGCAC press event on May 16, 2017, at the Museum of Aviation at Robins Airforce Base in Warner Robins, GA to announce a large renewable energy project to be built at the base.

- Invitees to the press event include local mayors, county commissioners, the MGCAC Chairman, several members of the Georgia Public Service Commission, the base commander, and Georgia Power.

Upcoming Major Decisions

None

Last Week Highlights

None

Region 5

Weekly Report 05/12/2017

HOT ISSUES:

Recent Communications to EPA from Flint Mayor's Office and City Councilwoman Indicate Tension Regarding the City's Future Water Source

Key Message: EPA has received separate communications from a Flint City Council member and the Mayor's office that indicate disagreement among the City's elected officials regarding the future source of the City's drinking water.

On May 5, 2017, Region 5 received a letter from City of Flint Councilwoman Kate Fields, and a follow-up email from her on May 9, accusing the Mayor of not providing the City Council and the public with enough information and time to review the Mayor's recommendation that the city continue to purchase water from the Great Lakes Water Authority (GLWA) for its long-term source of drinking water. The Councilwoman copied Michigan's U.S. Congressional delegation, Governor, and other state officials on her correspondence. In addition, the Mayor's office emailed EPA on May 10, to clarify some of the content of the Councilwoman's letter to EPA and correct misinformation. Members of Congress and elected officials from the State of Michigan were also copied on this email.

The content of these communications demonstrates a breakdown in communication within the city leadership and signals that the City Council may not support the Mayor's recommended long-term source water option. EPA supports the Mayor's recommendation since it's most protective of public health because there would be no change in the city's current source water. However, the Region's responses make it clear that EPA will not intervene on behalf of the Mayor or the Council. EPA will continue its focus on the protection of public health, including ensuring that any switches to the city's water source are properly planned and implemented as outlined in EPA's Order requirements. It is up to the city's elected officials, taking into account feedback from the public participation process, to make the final decision regarding the city's future water source.

Region 5 and Veolia Continue to Move Toward Settlement Outside of Alternative Dispute Resolution

Key Message: EPA and Veolia officials have reached a verbal settlement in principle and the Environmental Appeals Board (EAB) has removed the Veolia appeal from alternative dispute resolution (ADR).

As the result of a meeting on April 26, 2017, between Acting RA Kaplan and Doug Harris, Veolia's Sauget Plant Manager, the parties reached a verbal settlement in principle on Title 5 permit terms and conditions. On May 5, 2017, EPA sent a written draft settlement in principle to Veolia for upper management review and approval. On the same date, the EAB granted EPA's request to remove the Veolia matter from ADR due to the verbal settlement in principle. The EAB also issued an order denying the motion of an NGO to participate in the ADR due to mootness.

Region 5 is waiting for Veolia's response to the May 5, 2017 draft. Meanwhile, the Region expects to seek an extension to the May 15 stay of this matter on or before May 12.

UPCOMING EVENTS:

NONE

UPCOMING MAJOR DECISIONS

Indiana Harbor Confined Disposal Facility Draft PCB Disposal Approval

Key Message: EPA has proposed an approval for the US Army Corps of Engineers to dispose of PCB contaminated sediments in a Confined Disposal Facility (CDF) located in East Chicago, Indiana.

The Region is currently reviewing comments received during the February 28-March 31, 2017 public comment period and a March 6 public meeting. Many questions were raised during public comment and the Region, in coordination with the state, plans to hold an informational meeting in June to provide answers to those questions. The Region's final decision will be made in close coordination with Indiana Department of Environmental Management after review of the public comments is complete.

2015 Ozone Designations in Wisconsin

Key Message: EPA has received and is reviewing newly submitted designation recommendations for the 2015 ozone standard.

On April 20, 2017, Wisconsin submitted revised recommendations for the 2015 ozone standard. These revised recommendations ask EPA to consider much smaller areas than have been designated for previous ozone standards. Wisconsin points to transport from other states as the basis for these revised recommendations. Region 5, along with the Office of Air Quality Planning and Standards and the Office of General Counsel, will be briefing Tate Bennett on the revised recommendations on Friday, May 12, 2017.

EPA is statutorily required to promulgate designations for the 2015 ozone standard by October 1, 2017. These designations will consider recommendations made by states and tribes. Internally EPA has shared that designations may be delayed.

PAST WEEK ACCOMPLISHMENTS:

Residences in Hartford, Illinois Experienced High Vapors in Homes Due to Extreme Rainfall Events

Key Message: Region 5 has been monitoring the response to high levels of petroleum vapor intrusion found in Hartford homes.

Due to the heavy rainfall over the past few weeks, high vapor intrusion levels have been detected at homes in Hartford, Illinois, triggering the implementation of Apex Oil's contingency plan. Over 30 homes have been screened by Apex Oil. Of the six homes rescreened due to levels of concern, one home was evacuated on May 8, 2017. The evacuation was due to sub-slab measurements registering at 99% of the Lower Explosive Limit.

EPA and Illinois EPA oversee Apex Oil monitoring and response actions required by their contingency plan.

Time-Critical Removal Initiated at Gray Container Site, Cleveland, Ohio

Key Message: On May 8, 2017, EPA mobilized contractors to address wastes at the site and to provide 24-hour security due to continued break-ins.

After being requested by Ohio EPA to assist, EPA took emergency actions to stabilize the site on March 31, 2017. Since then, additional sampling conducted by EPA and Ohio EPA has identified heavy metals and volatile organic compounds in surface soils above EPA levels. Liquid wastes within the process building were previously found to be characteristically hazardous for chloroform, trichloroethylene and benzene. There are numerous drums and at least one aboveground storage tank with unknown contents. Given the contaminants as well as the numerous break-ins, Region 5 has initiated a Time-Critical Removal and is currently drafting a Time-Critical Removal Action Memorandum to document threats at the site.

On March 30, 2017, the owner of Gray Container vacated the property as a result of an Order from the Cuyahoga County Court of Common Pleas. The Order was the result of enforcement actions taken by Ohio EPA to address numerous violations at the facility. Upon vacating the property, the owner left the facility unsecure and with liquids overflowing from a waste pit previously identified by Ohio EPA as being characteristically hazardous waste.

Region 5 Mobilized into Layer Park, Miami Township, Ohio, This Week

Key Message: Region 5's superfund program mobilized into Layer Park and cleanup work is expected to start this week or early next week, weather dependent.

Cleanup work at the site will include lead soil excavation in Layer Park and one residential property near the park. Site preparation, such as tree removal, was conducted last fall.

Both Region 5 and Ohio EPA conducted sampling at the site in 2016 and found contamination levels varied widely across the 7.5-acre site. Officials found lead concentrations at up to 60 times the safe level in some sections of the park and a residential yard. Levels of arsenic were discovered in the park at three times the health threshold. Given the sampling results, both agencies determined that cleanup work was needed on 2.5-acres of Layer Park. Miami Township closed the park in January 2016 after being informed of the lead contamination. Ohio EPA asked EPA to take over the cleanup in April 2016. Additional site details can be found here.

Region 6

Weekly Report 05/12/2017

UPCOMING HOT ISSUES AND IMPORTANT DEADLINES

City of Dallas

Region 6 is discussing an Interim Objection Letter with TCEQ regarding the State issued MS4 proposed permit for the City of Dallas. The permit does not adequately address pollution from the city's facility discharges into a 303(d) listed stream segment and waterbody which has a final TMDL.

Proposed Approval of Revisions to the Texas State Implementation Plan (SIP) Emissions Banking and Trading Programs for Mobile and Minor Stationary Sources

Region 6 is working closely with the Texas Commission on Environmental Quality's (TCEQ) to parallel process rulemaking to update the existing Texas Emission Credit and Discrete Emission Credit Programs to clarify and expand the provisions for emission credit generation from mobile source and minor stationary sources. The parallel process approach allows EPA to cut the approval timeline provided Texas does not receive significant public comment resulting in significant revisions to the proposed rules. Texas will submit its final rules in late August 2017.

Midessa Superfund Site, Midland, TX

EPA will request access to install monitoring wells on an undeveloped property tract owned by Cumberland and Western Resources LLC. The access enables investigation of the extent of the tetrachloroethene ground water plume migrating south from the source area.

West County Road 112 Superfund Site, Midland, TX

EPA is working with the City of Midland and Midland County to assure we have an acceptable plan for alternative water supply options. The alternative water supply options will be used in the Feasibility Study to develop remedial alternatives for the Proposed Plan. The Texas Commission on Environmental Quality (TCEQ) currently maintains

filtration systems on more than 50 residences to remove hexavalent chromium from ground water produce through private water supply wells.

Announcement of Public Hearings for Proposed Outer Continental Shelf Oil and Gas General Permit

By May 16, 2017, the Water Division will be publishing newspaper notices in the Houston and New Orleans papers regarding the May 11, 2017 Federal Register Notice announcing the proposed reissuance of the NPDES permit for the general permit covering oil and gas exploration and production activities in the central and western Gulf of Mexico. These Notices will also announce two public meetings and hearings to be held the week of June 18th in the Houston and New Orleans areas.

NEPA

Gulf of Mexico Outer Continental Shelf Lease Sale 2018, Supplemental Draft Environmental Impact Statement (DEIS)

On May 15, 2017, Region 6 intends to issue a comment letter to support the Gulf of Mexico Outer Continental Shelf Lease Sale 2018, DEIS. The DEIS addresses the potential environmental impacts that could result from Bureau of Ocean Energy Management (BOEM) activities occurring due to the proposed scheduled Outer Continental Shelf oil and gas lease sales in the Five-Year Program of 2017 to 2022. BOEM will use this DSEIS to determine the potential environmental impacts that could result from a single proposed year in 2018 for leases numbered 250 and 251.

National Flood Insurance Program, Draft Environmental Impact Statement (DEIS)

On May 19, 2017, Region 6 intends to issue a comment letter supporting the National Flood Insurance Program, DEIS. The DEIS addresses the program modifications to the NFIP to (a) implement the legislative requirements of the Biggert-Waters Flood Insurance Reform Act of 2012 (BW-12) and the Homeowner Flood Insurance Affordability Act of 2014 (HFIAA); and (b) to demonstrate compliance with the Endangered Species Act (ESA). EPA HQ Office of Water has been working with FEMA as a cooperating agency.

UPCOMING PUBLIC EVENTS

May 18 – The City of Houston, the John P. McGovern Museum of Health & Medical Science and the EPA will unveil the nation's seventh Village Green Station that monitors air quality and weather conditions during a ribbon cutting ceremony.

May 15 - EPA will discuss the Brownfields program at the West Central Texas Economic Development District (EDD)-hosted "Know Your Partners" Conference at Abilene Christian University in Abilene, TX.

July 27-28 – Children's Health Symposium at University of Texas at El Paso, Texas. EPA is sponsoring the event.

September 17-21 - 19th Annual Stormwater Conference in San Antonio, TX. The Conference will inform and educate professionals on controls that can address stormwater pollution discharges to surface waters.

UPCOMING DECISIONS

Brazos Island Harbor Ocean Dredged Material Disposal Site (ODMDS)
Region 6 will recommend finalization of the Brazos Island Harbor Ocean Dredged Material Disposal Site (ODMDS) Site Management and Monitoring Plan (SMMP) Revision. This is a joint EPA and US Army Corp of Engineers action and is updated every ten years to to reflect modification to the use restriction for the Maintenance and New Work ODMDS to include suitable dredged material from the greater Brownsville, Texas vicinity. All dredged material from the BIH Entrance and Main navigation channels must be tested to determine its suitability for ocean disposal.

Texas Control of Air Pollution from Motor Vehicles with Mobile Source Incentive Programs Region 6 intends to approve through a direct final rule five Texas State Implementation Plan (SIP) revisions that pertain to regulations to control of air pollution from motor vehicles with mobile source incentive programs. Mobile source incentive programs provide funding to reduce air pollution emissions by replacing, repowering or retrofitting older, higher polluting engines. Previously, EPA approved Texas' regulations for mobile incentive programs into the Texas SIP. Texas submitted SIP revisions to update and improve the incentive program regulations for diesel vehicles, school buses, clean fleets and drayage trucks.

Approval and Promulgation of Implementation Plans; Texas; Revisions to the General Definitions for Texas Air Quality Rules
Region 6 intends to approve through a direct final rule Texas State Implementation Plan

(SIP) revisions that will incorporate the EPA's latest definition of volatile organic compounds (VOC), align the lead reporting threshold with the EPA's Annual Emissions Reporting Rule (AERR), shorten the distance from the shoreline for applicable offshore sources to report an emission inventory, and revise terminology and definitions for clarity or consistency with the EPA's AERR.

Withdrawal of Louisiana Volatile Organic Compounds Rule Revision and Stage II Vapor Recovery
On March 23, 2017, EPA published a direct final approval of a State Implementation Plan (SIP) revision - Louisiana Volatile Organic Compounds Rule Revision and Stage II Vapor Recovery. The comment period closed April 24, 2017, and relevant adverse comment was received. EPA is required to address comments in a separate subsequent final rulemaking.

Texas: Withdrawal of El Paso Carbon Monoxide Limited Maintenance Plan Direct Final Approval
On March 21, 2017, EPA published a direct final approval of a Carbon Monoxide (CO) Limited Maintenance Plan for the El Paso, Texas CO maintenance area. The comment period closed April 20, 2017, and a relevant adverse comment was received. EPA is required to address the comment in a separate subsequent final rulemaking. This withdrawal action must be published in the Federal Register before May 22, 2017, which is the effective date of the direct final rulemaking.

PAST WEEK ACCOMPLISHMENTS

Georgia Pacific Plant, Crossett, Louisiana

EPA and ADEQ conducted a face-to-face meeting to develop a long-term strategy to upgrade the Georgia-Pacific Crossett Plant in Crossett, Arkansas which is facing a variety of community concerns, legal challenges and a Civil Rights Act Title VI petition.

Approval and Promulgation of Texas Implementation Plans - Revisions to the General Definitions for Texas Air Quality Rules

Region 6 signed a direct final rule to approve a Texas SIP revision.

Ohkay Owingeh Tribal Water Quality Triennial Review, New Mexico

Region 6 sent a letter approving the Ohkay Owingeh triennial water quality standards revision.

Pueblo of Tesuque Tribal Water Quality Triennial Review, New Mexico

Region 6 sent a letter approving the Pueblo of Tesuque triennial water quality standards revision.

PENDING ACTIONS (Pending Federal Register Publication)

Louisiana New Source Review (NSR) State Implementation Plan for Air Permit Procedure Revisions

EPA Notice of Adequacy, Houston/Galveston/Brazoria 2008 8-Hour Ozone Nonattainment Area Motor Vehicle Emissions Budgets (MVEBs) State Implementation Plan (SIP)

Final Authorization of Louisiana Waste Management Program Revisions; Proposed Rule and Direct Final Rule

Final Authorization of Oklahoma Hazardous Waste Management Program Revisions; Proposed Rule and Direct Final Rule

Petition for Hazardous Waste Management System for Exxon Mobile

Response letter to LDEQ regarding RVP in 2017

Region 7

Weekly Report 05/12/2017

Hot Issues

10th Street Site Property Transfer, Columbus, Nebraska

Key Message:

Remedial activities completed at 10th Street Site and property in process of being transferred to the City.

- In 2015, the US Army Corps of Engineers with the support from the Department of Justice facilitated the federal government's purchase the 10th Street site properties in Columbus, NE.
- R7 has been implementing the remedy in the site's ROD amendment and performed remedial activities including the demolition of the existing structures, excavation down to water table, placing of bulk potassium permanganate in the open excavation, and backfilling/restoring the site.
- The final round of in-situ chemical oxidation has been performed and remedial activities have been completed on the 10th Street Site.
- The federal government partners are now proceeding with transferring the property to the city of Columbus, a co-signer on the Superfund State Contract. The transfer is anticipated to occur in July 2017.
- R7 is also currently working with the NDEQ on environmental covenants on four parcels at the site.

Update on Missouri Flood Status & EPA Mission Assignment

Key Message: On May 14, 2017, R7's FEMA Mission Assignment to assist with orphan drum location efforts related to the Missouri flood response expires.

- Currently, there has not been a federal disaster declaration for the Missouri flooding events.
- Based on current information, there is a low probability that R7 will receive ESF-10 taskings for field operations and/or technical support.
- MDNR has issued a limited state-wide waiver, that waives some disposal and permitting regulations for the disposal of yard waste, major appliances, discharges of waste water, and the burning of woody vegetation.
- It is also anticipated that household hazardous waste, electronics goods, and other flood related debris will be managed/disposed of at the local level.
- R7's role remains focused on coordinating with FEMA, U.S. Coast Guard, and MDNR a to assist with orphan drum location efforts and field collector application deployment.

MDNR Superfund Program Review

Key Message: MDNR Superfund/Brownfields Program Review completed with no significant findings.

- On May 10, 2017, a combined Superfund and Brownfields Program Review was conducted at the MDNR in Jefferson City, MO.
- The Program Review attendees included MDNR managers and staff from the Hazardous Waste Program and Brownfields Program, R7 Superfund and Brownfield Project Officers, Superfund Program Managers and Site Assessment Managers.
- In addition, there was a representative from the MDNR's General Counsel and Internal Audit Offices present during the entrance conference for the Program Review.
- The Program Review included a R7 review of activities and expenditures under MDNR's Superfund Combined Cooperative Agreement which includes CORE, Pre-Remedial and Support Agency components as well as MDNR's 128(a) Brownfields Cooperative Agreement.
- At the conclusion of the program review, R7 determined that MDNR's Cooperative Agreements have no significant issues, either technically or administratively, and that a strong collaborative relationship continues to be maintained between the state and R7.

Occidental Chemical Corporation Wichita, Kansas No Migration Petition Modification Approved

Key Message: On May 11, 2017, R7 published its approval in the Federal Register of the Occidental Chemical Corporation request to modify their existing no migration petition.

- The petition allows for the disposal of certain restricted hazardous wastes into injection wells located at the company's facility in Wichita, Kansas.
- The modification would allow the use of Well #11 as a hazardous waste injection well that would serve as a replacement for Well #4 (retired & plugged in 2008).
- R7 proposed approval of this request on December 12, 2016 allowing for a 45-day public comment period.
- On January 11, 2017, R7 hosted a public availability session for an opportunity to learn more about this proposed modification request and held a public hearing in Haysville, Kansas. Six people came to the public availability session but no one provided comments.
- R7 did not receive any public comments during the public comment period.

Kansas City, Missouri CSO & SSO Consent Decree

Key Message: On May 10, 2017, EPA Region 7 staff meet with the city of Kansas City for a semi-annual Consent Decree status meeting.

- At that meeting, the city signaled they intend to submit for R7's consideration a significant modification of the CD to provide financial relief to the rate payers.

- The city is evaluating the recommendations from the city's Rate Commission and updated sewer system models.
- A formal request will likely be submitted later this year.

Upcoming Events

Midwest Environmental Compliance Conference, Overland Park, Kansas

Key Message: On May 17, 2017, Acting Regional Administrator will participate in a panel discussion at the Midwest Environmental Compliance Conference.

- The conference will focus on environmental compliance, permitting, enforcement, and other environmental issues that impact Midwest facilities and institutions.
- The Acting RA's discussion will include the Administrator's priorities, budget and ECOS.

Last Week's Highlights

Region 7 State, Local, Tribal Air Meeting

Key Message: On May 9 – 11, 2017, R7 hosted the annual meeting of state, local, and tribal air agencies.

- The meeting brought together about 75 employees from state, local, and tribal air agency programs to discuss important air quality issues.
- The meeting highlighted coordination between federal, state, local, and tribal air programs to accomplish key objectives in state implementation plans, permitting and compliance programs.
- As the state air agencies have experienced heavy employee turnover in recent years, this meeting focused on sharing best practices to protect ambient air quality standards.
- An added feature of this year's meeting was the inclusion of the State's Small Business Assistance Programs established under the Clean Air Act Section 507 to assist small business with CAA compliance.

Region 8

Weekly Report 05/12/2017

Hot Issues

EPA and US Forest Service develop joint Non-Time Critical Removal Action for Libby Superfund Site

Key Message: This removal action will allow for continued fire preparedness within asbestos-contaminated forests near the WR Grace vermiculite mine in Montana.

Asbestos contamination in the forest could be liberated as a result of a wildfire, potentially exposing firefighters to unacceptable risk as well as impacting critical infrastructure (tailings dam and drinking water resources).
EPA's total anticipated cost for the three-year response action is $900,000; the Forest Service's anticipated cost is $6.9 million.
Region 8's goal is to finalize the Action Memo in May in order to implement these preparedness measures prior to the start of fire season, which begins in June.
The state of Montana and Lincoln County are supportive of this response action.
WR Grace is not supportive of this response action.
Region 8 is coordinating with OLEM. The OLEM Acting AA will sign the Action Memo.

Upcoming Public Events - None

Upcoming Major Decisions

Craig Power Station Settlement and Regional Haze SIP Action Deadline (first reported on 4/6/17)

Key Message: **Decision needed by OA**. EPA and DOJ are preparing to finalize a settlement agreement with the Craig power station owner, Tri-State Generation and Transmission Association, as well as with the Colorado Department of Public Health and Environment (CDPHE), WildEarth Guardians, and the National Parks Conservation Association. The settlement agreement has been signed by all other parties, but still needs initial EPA signature and completion of the Clean Air Act section 113(g) notice process, before EPA can provide final signature.

- Under this settlement agreement, Tri-State's existing obligation (driven by a 2014 settlement agreement that resolved 10th Circuit litigation) to install selective catalytic reduction (SCR) controls at Craig Unit 1 will be replaced by an obligation to either shut down the unit by the end of 2025, or to cease burning coal by August 1, 2021, and convert the unit to natural gas fuel by 2023.

- The agreement is the result of months of multiparty negotiations. The company stated at the start of these discussions that its concerns included avoiding the cost of installing the SCR controls that would be required under that previous agreement.
- We have a **June 30, 2017 deadline** to act on Colorado's 2015 Craig Regional Haze SIP submission. The company has already announced closure plans that would not be consistent with installing the SCR controls required by the 2015 SIP submission.
- If we miss the deadline there is no automatic consequence, but the environmental litigants might sue to require us to act on the 2015 SIP — which neither the company nor the state wants to happen.

Last Week Highlights – None

Public Hearings on the Draft Underground Injection Control (UIC) Permits for the Dewey Burdock Uranium In-Situ Recovery (ISR) Project.

Key Message: Region 8 held three public hearings in South Dakota the week of May 8th on the draft UIC permits and associated aquifer exemption for the Dewey Burdock ISR project located in Edgemont, SD.

- Hearings were held this week in the following locations:
  - Rapid City, SD
  - Hot Springs, SD
  - Edgemont, SD
- A total of 300 people attending the hearings in Rapid City including several commenters who identified themselves as tribal members. The Chairman of the Cheyenne River Sioux Tribe and the Chairman of the Crow Creek Sioux Tribe also commented on the record expressing their concerns with the project and with EPA's consultation on the proposed action.
- Small protests have occurred outside the locations prior to each hearing.
- The comments have been overwhelming in opposition to the project.
- Press attended the hearings which resulted in several print, television and radio stories.
- The public comment period is set to end on May 19, 2017; however, EPA has received a request from the permit applicant, Powertech, USA, to extend the public comment period until July 21, 2017.

Region 9

Weekly Report 5/12/2017

HOT ISSUES / ACTION ITEMS: fyi, no action requested at this time

1. Clean Air Act: I'll sign Federal Register notices

a. proposing full approval of Placer County's (CA) demonstration it has implemented Reasonably Available Control Technology for all major stationary and other sources for the 1997 and 2008 ozone standards;

b. finalizing approval of two Imperial Valley (CA) rules and a direct final conditional approval of one rule, all relating to air permitting and New Source Review.;

c. proposing approval of revisions to Arizona's New Source Review permitting program, which corrects deficiencies in the program identified two years ago.

PUBLIC EVENTS / KEY MEETINGS

1. Port of Los Angeles: on Monday, I'll join the Port of Los Angeles and local elected officials at a press event with So. California's largest recycler/exporter of scrap metal, S A Recycling, showcasing a new $6.3 million electric mobile crane, supported in part by a $1.3 EPA DERA grant (Diesel Emissions Reduction Act). The Los Angeles and Long Beach ports focus in very innovative ways to move goods with zero- and low-emission equipment.

2. EPA's national asthma management award: on Monday, I'll present anew to the staff of the "Healthy Breathing" project the national EPA asthma award given to Esperanza Community Housing in Los Angeles.

3. Tribal training: next week in Phoenix (AZ), we'll cohost with the Colorado River Indian Tribe a weeklong training course on water quality monitoring, assessment, and watershed protection. We'll also cohost with Navajo Nation a workshop on contaminated structures, training colleagues on identifying best practices in assessing uranium-contaminated structures, use of data, and communicating results to residents.

4. Lean Six Sigma: we're hosting green-belt certification training for the States of Arizona and California as well as EPA HQ and other EPA Regional participants.

PAST WEEK'S HIGHLIGHTS

1. Job training: today I spoke at the graduation of 55 young adults from the Cypress Mandela Training Center, which receives EPA's Environmental Workforce Development

and Job Training funds. See photo. This center has received over $1.4 million from EPA in the past 20 years graduating over 600 for careers in environmental remediation and the construction trades; some already accepted employment offers from the major No. California utility (PG&E) and various major construction firms in the area. A similar program exists in W. Virginia focused on coal miners.

Region 10

Weekly Report 05/12/2017

Hot Issues

None this week

Upcoming Public Events

Willamette River Toxics Reduction Partnership Kick-off Meeting (OR): The first meeting of the Willamette River Toxics Reduction Partnership, co-led by Oregon Department of Environmental Quality and EPA Region 10, will be held on May 24th. Meeting participants will discuss goals and priorities of the project and the structure of the group moving forward.

Upcoming Major Decisions

Approval proposed for Alaska DEC's Lead NAAQS Infrastructure Requirements (AK): The Clean Air Act requires states to submit plans knows as infrastructure requirements following promulgation
of a new or revised National Ambient Air Quality Standard. The R10 acting Regional Administrator signed a Federal Register notice that proposes approval of Alaska Department of Environmental Conservation's Plan for implementation, maintenance and enforcement of the lead standard. This has been forwarded to the Office of Policy for action.

Motor Vehicle Emissions Budget for Oakridge PM 2.5 Implementation Plan meets Clean Air Requirements (OR): The R10 acting Regional Administrator signed the Federal Register Notice to announce that EPA Region 10 has determined the adequacy of the Motor Vehicle Emissions Budget submitted by Oregon DEQ as part of the state implementation plan for achieving the PM 2.5 National Ambient Air Quality Standard in Oakridge, Oregon. This has been forwarded to the Office of Policy for action.

Approval of Washington's Adoption of the Revised Total Coliform Rule (WA): The R10 acting Regional Administrator signed a Federal Register notice to approve the Washington Department of Health's (WADOH) adoption of the Revised Total Coliform Rule, which the State adopted by reference. EPA revised the 1989 Total Coliform Rule (TCR) in 2013 and adopted the RTCR to improve public health protection. Drinking water primacy states such as Washington are expected to update their state rules and make them no less stringent then federal rules, and WADOH has done that. All public water systems (PWSs) must comply with the RTCR starting April 1, 2016. EPA considers total coliforms a useful indicator of other pathogens for drinking water. Total coliforms are used to determine the adequacy of water treatment and the integrity of the distribution system. The FR notice has been forwarded to the Office of Policy for action.

Upcoming Approval of Alaska's Recreational water quality criteria (AK): By the end of May, EPA Region 10 plans to approve Alaska's revised water quality standards (WQS) to protect primary contact recreation in Alaska's fresh water and marine water. On January 24, 2017, Alaska's Department of Environmental Conservation submitted to EPA revised state WQS updating bacteria criteria that protect primary contact recreation in fresh water and marine water. Alaska's revisions address bacteria criteria (indicator organism, magnitude, duration, and frequency) to protect primary contact recreation in marine water, and are consistent with the Clean Water Act and EPA's current national recreational criteria recommendations. These revisions also address the BEACH Act requirements for coastal waters and Alaska will be formally withdrawn from the federal rule at 40 CFR 131.41. EPA offered tribal consultation and held an informational call with tribes on the revisions on April 4, 2017. The EPA did not receive any formal requests for government-to government consultation.

Updating the Salish Sea Statement of Cooperation (SOC) Action Plan (WA): EPA Region 10 in coordination with Environment Climate Change Canada West and North Region (ECCC WNR) will be sharing in early June a draft of an updated shared Action Plan (2017-2020) and offering consultation with Puget Sound Tribes before finalizing later this summer. The updated plan includes actions for supporting information exchange, and strengthening coordination – examples include co-planning the bi-annual Salish Sea Ecosystem Conference in 2018 and improved information sharing around transboundary issues. The Puget Sound basin is the southern portion of a larger "Salish Sea" basin that extends well into British Columbia, Canada. To foster ongoing cross-border communication on our respective programs that impact this transboundary ecosystem, EPA and ECCC established a SOC on the Salish Sea ecosystem in the year 2000. Every 2-3 years EPA and ECC WNR update the SOC Action Plan.

Last Week Highlights

Hanford Nuclear Reservation/PUREX Tunnel Collapse (WA): On May 9, 2017, a soil subsidence was identified during a routine inspection of the Department of Energy (DOE) PUREX (Plutonium-Uranium Extraction Plant) railroad tunnels at the Hanford 200 East Area, near Richland, Washington. Regulated under RCRA, the tunnels provide long-term storage of failed process equipment from plutonium processing at Hanford. The area of the collapse was approximately 20 feet by 20 feet. DOE was the lead federal agency for emergency operations this week, which included: Securing the site with a temporary shelter in place for workers; air monitoring and sampling; and crews filling the hole in the tunnel near the PUREX with soil. Approximately 50 truckloads of soil or 550 cubic yards of soil was use to fill the hole. EPA had an On-Scene Coordinator in the EOC to coordinate and communicate activities and provide assistance. On 10 May 2017, the Washington Department of Ecology issued the DOE an Administrative Order under Chapter 70.105 Revised Code of Washington (Hazardous Waste Management Act) and the Hanford Facility Resource Conservation and Recovery Act Permit. The Order states that Ecology has determined one or more violations have occurred and corrective actions

must be taken. The Hanford Emergency Operations Center indicated that the Operational Emergency was terminated on May 11, 2017. Access to portions of the Hanford Site 200 East Area will continue to be restricted until additional near term actions are completed to ensure safety.

Northern Oilfield Services Inc. Tabletop Exercise (AK): This week EPA Alaska On-Scene Coordinators participated with State counterparts in a tabletop exercise based upon a response to a discharge of fuel on the North Slope. The scenario involved the discharge of 18,000 gallons of ultra-low sulfur diesel from an aboveground storage tank. Objectives of the exercise include, proper establishment of an Incident Management Team with Unified Command, evaluation resources of tactics to support the response, and development of an Incident Action Plan through a full planning cycle.

Shell's Environmental Monitoring Program (EMP) in the Arctic Ocean (AK): Shell Oil recently submitted a comprehensive EMP Report summarizing the results of a two-year study designed to assess the impacts of oil and gas exploration discharges to the marine environment before, during and after drilling has ceased. Shell was required to complete the study under the Chukchi Sea Exploration NPDES general permit and conducted this monitoring effort during the 2015 and 2016 open water seasons. EPA staff worked closely with Shell during the development of the EMP Plan of Study and subsequent monitoring reports. The final EMP report adds to our knowledge about discharges from exploration activities in the Arctic Ocean. EPA has determined that Shell has satisfied all of the requirements of the EMP. We understand Shell intends to follow up with a request for termination of permit coverage.

Statement of Cooperation (SOC) Alaska Native Claims Settlement Act (ANCSA) Contaminated Lands Committee Meeting (AK): Last week this new committee met in Anchorage to develop a plan for responding to the recommendations in the *Report to Congress: Hazardous Substance Contamination of Alaska Native Claim Settlement Lands in Alaska*. Representatives from the Alaska Department of Environmental Conservation, EPA, Army Corps of Engineers, US Fire Administration, Department of Interior, Bureau of Land Management, Federal Aviation Administration, Coast Guard, and the Denali Commission participated in the meeting. The committee devised a plan for updating the current inventory of contaminated lands by August 2017, developing a methodology for prioritizing sites, and outlined next steps for the Denali Commission to engage Native Corporations.

Corvallis Residential Mercury (OR): Late on Friday, May 5th, the Oregon Department of Environmental Quality requested EPA assistance in responding to a release of elemental mercury at a single-family residence in Corvallis, Oregon. Due to concerns about health impacts from mercury vapors, the American Red Cross provided temporary housing and other assistance to the family. EPA also provided immediate advice on methods to limit the spread of contamination and personal protection measures such as immediately washing skin and bagging all clothes that may have come into contact with the mercury. EPA's On-Scene Coordinator arrived on scene with technical support contractors early Saturday, May 6th, and immediately began assessing the extent of

contamination and potential impacts. Due to the prudent initial actions by the family, the contamination was limited to the immediate spill area, some household materials and garbage, and clothing. Two family dogs also had contamination on their paws and body; and with the advice and assistance of a local veterinarian, the dogs were successfully decontaminated. The homeowner's insurance company hired a cleanup contractor who conducted the necessary cleanup actions under EPA oversight. EPA demobilized from the site on Sunday and the family was able to return to their home.

OCIR

Weekly Report 05/12/2017

Upcoming Hot Issues and Important Deadlines

IG's Semiannual Report to Congress due to be transmitted to Congress by 5/31/2017

Environmental Workforce Development and Job Training Grant announcement

5/16/2017

Brownfields Assessment, Revolving Loan Fund and Cleanup Grants announcement
Week of May 22

Upcoming Events

May 16 - Per a request from U.S. Senator Cory Gardner (R-CO), on Tuesday, Council President Steve Nawrocki and other Pueblo local officials will meet with EPA to discuss difficulties in meeting EPA's Selenium Standards. City Manager Sam Azad, as well as the city's Director of Water and Wastewater, Nancy Keller, will be among the delegation. Region VIII staff will join OIR and the Office of Water for the meeting.

May 18 - EPA will meet with Hamilton County Commissioner Todd Portune to discuss increased flexibilities under Integrated Planning and Permitting for CSO communities under the Clean Water Act. The Office of Water, Office of Enforcement and Compliance Assurance, and Region V will join OIR for the meeting.

May 18 - Water Quality and Integrated Planning**;** House T& I, Subcommittee on Water Resources and Environment- EPA providing a written statement for the record

May 19 – Legislative hearing on Drinking Water Infrastructure; House Energy and Commerce, Subcommittee on Environment; No EPA witness- EPA providing written statement for the record

Past week accomplishments

May 8 – EPA participated in a tour for Rep. Debbie Dingell (MI) of the EPA's National Vehicle and Fuel Emissions Laboratory in her district in Ann Arbor, MI.

May 9-11 – OPA and OCIR are hosted the National Public Affairs Directors, Regional Congressional Liaisons and the HQ Communications Directors meeting at the HQ offices.

May 10 - The **National Governors' Association**, the National Governors' Association hosted EPA for an outreach meeting on EO 13777, Enforcing the Regulatory Reform Agenda. OCIR and OP provided background information on the Agency's plans to implement the EO and seek input and assistance from the governors' representatives to identify existing regulations that may be candidates for repeal, replacement, or modification.

May 11 – House T&I bipartisan staff were briefed on WIFIA implementation w/OW the committee staff.

May 11 - The Local Government Advisory Council (LGAC)/*Air, Climate and Energy* workgroup will meet via teleconference. The Workgroup will provide input on concerning Executive Order 13777, Enforcing the Regulatory Reform Agenda, on regulations that may be appropriate for repeal, replacement or modification.

May 11 - *LGAC's Executive Committee* will met to discuss Workgroup comments on Executive Order 13777, Enforcing the Regulatory Reform Agenda.

May 11 Pesticide regulation and PRIA; Senate Agriculture; Rick Keigwin, Acting Director of the Office of Pesticides Programs testified before the committee. The hearing emphasized the importance of reauthorizing PRIA and the importance of food safety and farmworker protection.

Ongoing activities

OCIR worked with the Office of Air and Radiation staff to draft written testimony for Administrator Pruitt to submit to the House Energy and Commerce Committee on H.R. 806, Ozone Standards Implementation Act of 2017. Senior management review in the Office of the Administrator is underway. The testimony will then undergo OMB interagency review and be finalized in advance of a committee markup on the bill, which is not yet scheduled.

OW
Weekly Report 05/12/2017

Hot Issues

"Waters of the United States": The step 1 proposed rule is currently undergoing interagency review at OMB and we are awaiting comments. Next week, we anticipate launching a new website dedicated to the two-step rulemaking process, including relevant guidance and Supreme Court decisions that guide the agencies' implementation of "waters of the U.S." during the Sixth Circuit stay and proposed re-codification of the 1986 regulations. Also next week, in support of our federalism and tribal consultation efforts, we will brief the National Governors Association and governors' staff, meet again with the Local Government Advisory Committee, and hold our second national webinar for our tribal consultation.

Lead Modeling FRN: Next week, we anticipate sending to the OFR for publication, a notice announcing the eight final peer reviewers assembled by Eastern Research Group, Inc. (ERG) for the external peer review of EPA's "Proposed Modeling Approaches for a Health-Based Benchmark for Lead in Drinking Water" (lead modeling report), and the date and location of the peer review meeting. To provide the public within 30 days advance notice of the peer review meeting, the notice must be to the OFR for publication by May 22.

Upcoming Public Events

National Utility Contractors Association Washington Summit: On Tuesday, Mike will speak at NUCA's Washington Summit on the future of water infrastructure. NUCA is America's oldest and largest trade association of excavation and utility contractors with approximately 1500 member companies nationwide who construct primarily utility infrastructure and also produce supplies and equipment for building infrastructure.

American Sustainable Business Council: Next week, Mike will meet with members of the ASB Council.
The ASB is a network of businesses and business associations supporting a more sustainable economy. The Council spans a network of business associations which represent over 200,000 businesses and 325,000 business executives, owners, and investors.

Last Week Highlights

Puerto Rico SRF**:** EPA and USDA held a very productive meeting with PRASA, AFFAF and PROMESA to discuss options for restructuring PRASA's debt to the SRFs and USDA RUS. PRASA's Fiscal Plan recently approved by PROMESA was discussed as well as PROMESA's recommendations which PRASA will incorporate into their Fiscal Plan. EPA and USDA presented options to PRASA for restructuring PRASA's debt to the SRFs and USDA RUS. The Agency was firm in recommending that appropriate mechanisms are in place to prevent similar meltdowns in the future. PRASA is meeting with their senior bond holders but plan to contact EPA and USDA next week to continue

discussions on the EPA and USDA options. EPA, USDA and PRASA hope that compromise can be reached before the EPA and USDA forbearance agreements expire on June 30, 2017

NACEPT Approval of Assumable Waters Subcommittee Report: At the National Advisory Council for Environmental Policy and Technology (NACEPT) meeting this week, the Assumable Waters Subcommittee provided an overview of its recommendations report on how the EPA can best clarify which waters a state or tribe assumes permitting responsibility under the Clean Water Act (CWA) section 404 program. NACEPT considered the recommendations and approved the report at the meeting. NACEPT plans to expeditiously convey the recommendations to the Agency. The subcommittee's report was posted to the NACEPT webpage.

WIFIA:

This week, OW and OCIR participated in a WIFIA briefing for House Transportation and Infrastructure, Water Resource & Environment bipartisan staff, focusing on the Letter of Interest review process.

OLEM
Weekly Report 05/12/2017

Hot Issues

1. **Hazardous Waste Generator Rule Litigation**. The rule was finalized in November 2016. OGC and DOJ recommend that the litigation be held in abeyance. The rule is scheduled to become effective May 30. The petitioner brief is due June 5.

2. **National Priorities List (NPL), Spring 2017 package of proposed sites and final sites.**

3. **Coal Combustion Residuals (CCR) Guidance**.
   (i) ASTSWMO comments on the draft guidance are requested by tomorrow (May 12).
   (ii) OLEM reps will be on the ECOS Waste Committee's call tomorrow (May 12) to seek ECOS feedback. ASTSWMO will also join on the ECOS call.
   (iii) OLEM reps will confer with OP regarding next steps on OMB interaction. This week, Jim Laity of OMB indicated that OMB would likely want to formally review the draft guidance under EO 12866. On the other hand, he didn't say how long OMB would need for the review, and he seemed open to us using the guidance even while it is undergoing OMB review. We continue to target having a product that has at least cleared OLEM by June 8 or 9.

4. **Brownfields Legislation**. OLEM reps are conferring with OCIR on how to respond to a request for written comments on Brownfields legislation.

Upcoming Public Events

1. **Upcoming Brownfields Program Funding Announcements**. We are working with OPA to see if we can announce the Environmental Workforce Development and Job Training grant selections as early as May 16, and the Brownfield Assessment and Cleanup grant selections as early as May 22.

2. **Interstate Mining Compact Commission (IMCC) [not a public meeting]**. On May 16, OLEM reps will meet with the IMCC and their stakeholders in Denver, Colorado to discuss the proposed CERCLA 108(b) Hardrock Mining Rule.

3. **Construction & Demolition Recycling Association [not a public meeting]**. OLEM reps are meeting with the Executive Director of this organization on May 18.

Upcoming Major Decisions

1. **NPL** -- see above.

2. **Risk Management Program Rule**. The public comment period ends on May 19,

regarding the proposal to delay the effective date. A final rule would be issued before June 19, the current effective date of the RMP final rule.

3. **Hanford Reservation Upcoming Record of Decision.** Based on the recent revised CERCLA delegation of authority for remedy selection, OLEM will work with Region 10 to brief the Administrator on the Department of Energy Hanford 100-D & H Area Record of Decision (ROD). The ROD will address groundwater and many waste sites in the Hanford 100 Area. The draft preferred alternative for soil is the removal, treatment, and disposal of contaminated soil from waste sites, and institutional controls. For groundwater, the draft preferred alternative is to expand the existing pump and treat system along with monitored natural attenuation. The estimated cost of the preferred remedy is $375 million, which includes costs for work already performed as well as additional work outlined in the ROD.

Last Week Highlights

1. **Administrator's CERCLA Delegation Package**. OLEM helped develop the CERCLA delegations package that the Administrator signed and announced this week.

2. **OLEM Reg Reform Meeting.** On May 9, OLEM held its public meeting to implement Executive Order 13777. We expect to meet the deadline for our package that is due May 15.

3. **Hazardous Waste Generator Rule Litigation**. The rule was finalized in November 2016. The Agency has been sued. We are working with OGC (who is working with DOJ) as well as OECA. We plan to agree to a proposal for the litigation to be held in abeyance and settlement discussions to be held.

4. **International CBRN CONOPS**. On May 2, the National Security Council finalized the federal government's Concept of Operations (CONOPS) for International Chemical, Biological, Radiological, and Nuclear (CBRN) Response. OLEM reps worked with OHS and others across the Agency in commenting on the CONOPS in draft. Under the CONOPS, the State Department will frequently lead overall US response. Three of the CONOPS's ten functions relate to areas where EPA could be called upon: Situational Assessment, Control of Hazardous Materials Releases, and Restoration of Critical Infrastructure and Services.

OCFO

Weekly Report 05/12/2017

Hot Issues

None at this time.

Upcoming Public Events

OMB just announced the release of the budget has been moved from May 22 to May 23. The agency continues to develop and finalize budget materials, including OMB clearance as well as developing fact sheets to support both the budget release and congressional hearings.

OCFO is working with NPMs to address OMB comments on the FY 2016 Agency Performance Report and FY 2018 performance measure targets and is also working with OLEM and OECA to address comments from the Chief of Staff regarding FY 2018 Superfund targets.

On May 12, OCFO plans to submit to OEX for the Administrator's signature next week a required statement in the budget which provides assurance that performance reporting data are as reliable and complete as possible.

Upcoming Major Decisions

OCFO provided Straw Back-to-Basics Strategic Plan Framework developed by agency core team to the Administrator for review this weekend. Based on feedback, the core team will adjust the Framework for approval of the Administrator prior to sharing with agency senior leadership.

OCFO developed a straw set of quarterly performance metrics for the Administrator and a mock-up quarterly reporting dashboard to share with Chief of Staff for his review. Based on feedback, we will adjust metrics and quarterly reporting mock-up and proceed to gather data for piloting the effort.

Last Week Highlights

Treasury's soft launch rollout of additional Federal agency contracts and grants spending data required by the DATA Act occurred on May 9 and is available at beta.usaspending.gov. To date, EPA has not received any public inquiries on our data.

OCFO conducted "Risk Based Decision Making at EPA" training for more than 180 agency management integrity advisors, NPM/regional planners, and risk liaisons to clarify roles, responsibilities, and expectations for this year's integrated strategic review and management integrity processes.

Other

OCFO is preparing the FY 2017 Operating Plan based on recent decisions communicated by the Chief of Staff. The Agency must submit a FY 2017 Operating Plan to the Hill by June 5, including 5 days for OMB review and approval.

OECA

WEEKLY REPORT 05/12/2017

HOT ISSUES

Black Elk Energy to Plead Guilty in Fatal 2012 Gulf of Mexico Oil Drilling Platform Explosion – In November 2012, an explosion and fire occurred on an oil production platform killing three employees and injuring several others. The explosion also caused the release of approximately 500 barrels of crude oil into the Gulf of Mexico. On May 12, 2017, Black Elk Energy (BEE) is set plead guilty in the Eastern District of Louisiana to violating eight felony counts of the Outer Continental Shelf Lands Act (OCSLA) and one count of violating the Clean Water Act. BEE will pay a criminal fine of $4.2 million. (In an earlier plea in the same case, contractor Wood Group PSN admitted that its employees were negligent in the way they authorized hot work on the platform and pled guilty to violating the Clean Water Act and False Statements. Wood Group PSN was ordered to pay a $9.5 million criminal fine.) Other defendants remain pending trial.

Fiat/Chrysler Complaint - Informational: On May 19th, DOJ plans to file a civil complaint on behalf of the EPA against Fiat Chrysler Automobiles (FCA) to address the failure to disclose engine management software in certain light duty diesel vehicles. The timing is driven by the desire to timely join and fully participate in the multi-district litigation (MDL) in the N. Dist. of California. We have recently received a request from FCA to delay filing, and are discussing that request with Byron Brown, Justin Schwab, Mandy Gunasekara, and DOJ.

Volkswagen Litigation: Under the first partial settlement with VW (October 2016), the company is required to buy back or -- if it can meet criteria for technical modifications to the vehicles -- offer an "Emissions Modification" on its 2009 – 2015 diesel vehicles. As early as May 12, Volkswagen will publicly withdraw its proposed Emissions Modification for approximately 7,200 Passat vehicles with a manual transmission, and will buy-back those vehicles. Per the settlement agreement, those vehicles will be scrapped, with no option for resale or export (except as parts). Concurrently, the EPA and the California Air Resources Board will approve Volkswagen's proposed emissions modification for the remainder of the 2012-2013 model year 2012-2013 Passats (those with an automatic transmission).

UPCOMING PUBLIC EVENTS

OECA Acting Assistant Administrator to Speak at ABA Environmental and Energy Litigation Committee CLE: On May 18th, OECA Acting AA Larry Starfield and Acting Assistant Attorney General Jeff Wood will speak at a Regional CLE program in Washington, D.C. hosted by the ABA Environmental & Energy Litigation Committee. The expected audience is environmental and energy regulatory counsel and litigators. This event is open press.

Meeting with Department of Defense on Environmental Issues: On May 12th, OECA's Federal Facilities Enforcement Office is meeting with Maureen Sullivan, Director of Environment, Safety and Occupational Health at the Office of the Secretary of Defense to discuss common issues including compliance challenges across the services, and to explore how to expeditiously resolve disputes to ensure environmental compliance and cleanup, reuse and redevelopment at federal facilities.

UPCOMING MAJOR DECISIONS

*Case-specific deadlines are noted in our Daily Enforcement Report to Ryan Jackson.

LAST WEEK'S HIGHLIGHTS

RINs Criminal Indictment: Last week, Keystone Biofuels, Inc. and two of its officers were indicted in the Middle District of Pennsylvania on conspiracy and false statements charges for participating in a scheme that generated over $10 million in EPA renewable fuels credits (RIN credits). The conspirators are alleged to have participated in a scheme to fraudulently claim RIN credits on non-qualifying biodiesel fuel. The fuel produced by Keystone allegedly did not meet standards required to claim the RIN credits. The conspirators also allegedly generated fraudulent documentation and manipulated samples to be sent to laboratories for testing as part of their scheme, and allegedly made false entries into an EPA tracking system in violation of the Clean Air Act. (DOJ issued a press release, but consistent with their past practice, they do not include EPA or DOJ quotes in press releases on the indictment phase of a case.)

OITA

Weekly Report 05/12/2017

Hot Issues

EO 13777 Tribal Outreach: OITA's American Indian Environmental Office held its second National Tribal Outreach Call meant to solicit information from tribal governments, tribal government officials, and tribal organizations on Executive Order 13777: Enforcing the Regulatory Reform Agenda.

- The call included 100 tribal participants and EPA staff who were on-hand to respond to specific questions.
- There were questions on how the regulatory reform process will proceed, including who will form the regulatory task force and what regulations will be subjected to review.
- The participants expressed the need for additional time to ensure that tribes and tribal representatives can comment appropriately and provide detailed responses.
- The participants emphasized the key role that EPA regulations have played in supporting human health and environmental protection in Indian Country, and the need to include Environmental Justice framework in any analysis of regulatory impacts.
- Specific concerns were raised regarding evaluating the Clean Air Act using a cost-benefit framework, any modification to the Clean Water Act would further impact tribal subsistence diets, and the role of EPA in evaluating harmful impacts of resource extraction activities in Alaska.

G7 Environment Ministerial Preparatory Meeting: OITA represented the United States at the last formal meeting to prepare for the upcoming G7 Environment Ministers Meeting (EMM), scheduled for June 10-12 in Bologna, Italy.

- Concepts important to the U.S. were captured in the draft communique, including the need for private sector collaboration on environmental policy-making; the role that environment can play in spurring economic growth and creating jobs; and the importance of access to capital to finance environmental infrastructure.
- We had positive exchanges with other G7 countries on reducing marine litter and improving resource efficiency which was also captured in the communique.
- We conveyed that the U.S. climate policy is currently under review and therefore we could not support the inclusion of climate language in the communique.
- A meeting with the White House lead on the G7/G20 negotiations is being scheduled in late May before the Environment Ministers Meeting.

Upcoming Engagements

- Meeting with the Administrator and German Minister of Environment, Nature Conservation, Building and Nuclear Safety, Barbara Hendricks, on May 16 to discuss bilateral cooperation on air quality, and she is expected to raise the Paris Agreement.

Past Week Accomplishments

U.S. Arctic Council Meeting: Secretary Tillerson and Foreign Ministers of the other eight Arctic States are meeting in Fairbanks, Alaska for the tenth biennial Arctic Council Ministerial meeting and to mark the 20th anniversary of the Arctic Council.

- The Arctic Council Ministerial will feature three EPA/OITA-led deliverables submitted through the Council's Arctic Contaminants Action Programme (ACAP), which are: 1) Report on *Reduction of Black Carbon from Diesel Sources in the Russian Arctic – Tundra Reindeer Farm*; 2) *Framework on the Circumpolar Expansion of the LEO Network*; and 3) Report on *Circumpolar Best Practices: Policy and Financing Options for Black Carbon Emissions Reductions from Diesel Sources*.
- These projects represent the bulk of ACAP's accomplishments during the U.S. Chairmanship and demonstrates progress on critical environmental and infrastructure issues.

U.S.-China Environmental Industries Forum: Representatives from EPA, Department of Commerce (DOC), China's Ministry of Environmental Protection (MEP), Chinese Provincial Environmental Protection Bureaus, and U.S. and Chinese companies met at the 4th Environmental Industries Forum to discuss policies and technical solutions related to land contamination and remediation.

- The U.S.-China Environmental Industries Forum is organized by EPA, DOC and MEP under the U.S. – China Joint Commission on Commerce and Trade, and highlights market opportunities to address environmental challenges.
- This year's Forum was held in New Orleans and site visits to the Bayou Bonfouca Superfund site and Brownfield redevelopment projects were arranged by EPA Region 6, Louisiana Department of Environmental Quality, and local government officials to showcase public-private partnerships and the economic benefits of land reuse and revitalization.

OAR

Weekly Report 05/12/2017

Upcoming Hot Issues and Important Deadlines

Moving Forward on Renewable Fuel Standard (RFS) Proposed Rule for 2018 volumes: This week we concluded internal review of the proposed rule package and submitted it to the Office of Management and Budget. Today we briefed OMB and the interagency reviewers on the proposed rule package. OMB now will begin formal review of the proposed rule under Executive Order 12866.

Upcoming Meetings, Public Events, or Other Public Releases

EPA Regional Air Division Director meeting: The regular, semi-annual meeting of the Air Division Directors (ADDs) from each of the EPA Regional Offices will take place in Chicago next week, from May 16-18th. Senior managers from across OAR will be attending, and we look forward to discussions with the ADDs on a range of air issues.

Issuing Final Updated ENERGY STAR Specifications for Commercial Ice Makers: As early as the week of May 15th, EPA will finalize the third version of its commercial ice maker specification, which will take effect January 28, 2018. This new specification makes more stringent the ENERGY STAR efficiency requirements in light of the forthcoming minimum efficiency standard from the Department of Energy. During the development of this specification EPA sought feedback from a wide range of stakeholders through three draft specifications, two stakeholder webinars, and numerous meetings with individual stakeholders.

Upcoming Decisions

For Administrator's signature – Stay Notices for Municipal Solid Waste (MSW) Landfills New Source Performance Standards (NSPS) and Emission Guidelines (EG): EPA is initiating a review of the 2016 MSW Landfill NSPS and EG. In the near term, we will be moving two stay notices forward for the Administrator's signature. The first of the notices will be a 3-month stay (using authority in Clean Air Act section 307). The second of the notices will be a proposal to extend the stay for additional time beyond 3 months. We anticipate the notices will be to the Administrator's office for review/signature next week so that they can be signed and published in the Federal Register by May 26th. (Note: publication by this date is necessary in light of the May 30th deadline for states to submit plans in accordance with the EG pursuant to section 111(d) of the Clean Air Act.)

For Administrator's signature – Stay Notices for Oil and Natural Gas New Source Performance Standards (NSPS): EPA is initiating a review of the 2016 Oil and Natural Gas NSPS, as directed by the President in Executive Order 13783. In the near term, we will be moving two stay notices forward for the Administrator's signature. The first of

the notices will be a 3-month stay (using authority in Clean Air Act section 307) of the fugitive emissions requirements in the rule, which are scheduled to go into effect on June 3, 2017. The second of the notices will be a proposal to extend the stay for additional time beyond the 3 months and to expand the scope of the issues being stayed. We anticipate the notices will be to the Administrator's office for review/signature next week so that they can be signed and published in the Federal Register by June 2.

Recap of the Past Weeks

Actions sent for Administrator's signature:

Reconsideration of Aspects of the 2016 New Source Performance Standards (NSPS) for Municipal Solid Waste Landfills, and a Stay of the Effective Date for both the NSPS and the Emission Guidelines. In a letter in response to several administrative reconsideration petitions, EPA is noting its intent to reconsider certain aspects of the 2016 NSPS for the municipal solid waste landfills and its intent to issue a 3-month stay of the effectiveness of both the NSPS and the emission guidelines.

Scrubgrass Generating Station Title V Petition Response: There is a May 12th deadline for the Administrator's signature on an order responding to a petition requesting that the EPA object to a permit issued by Pennsylvania Department of Environmental Protection (PADEP) to the Scrubgrass Generating Station in western Pennsylvania.

Letter to Louisiana Regarding the State's Request to Relax the Federal RVP Standard: In response to an April 10th letter from Louisiana, we are sending a letter to the State in which we indicate that once the state has demonstrated that it does not need low RVP fuel for attainment, OAR would begin the process to legally change the standard, and OECA would act consistent with OAR's action (once the action is proposed).

Air Quality Designations for the 2012 Primary Annual Fine Particle (PM2.5) National Ambient Air Quality Standard (NAAQS) for Areas in Tennessee: This final action designates as Unclassifiable/Attainment the remaining undesignated areas in the state of Tennessee for the 2012 primary annual PM2.5 NAAQS.

EPA Staff are Finalists for the 2017 Samuel J. Heyman Service to America Medal for Homeland Security and Law Enforcement: As you probably have heard, the Volkswagen enforcement and settlement teams from OAR, OECA, and the Department of Justice were selected as finalists for the 2017 Samuel J. Heyman Service to America Medal for Homeland Security and Law Enforcement. Byron Bunker from OAR, Phil Brooks from OECA, and Josh Van Eaton from DOJ represented the team at the recognition ceremony this week.

Public Service Recognition Week: To mark Public Service Recognition week, OAR held an open house to thank staff for their work here at EPA.

OARM

Weekly Report 05/12/2017

Hot Issues

EPA Conference Center

OARM is working with the General Services Administration on the requirements to renovate the former William Jefferson Clinton East cafeteria into a state of the art conference center. This center will replace the Potomac Yard conference center. Employee input on design will be solicited using "GreenSpark", which is an internal engagement program that invites employee-driven innovation. The work will be conducted in four phases:

1. Demolition of the kitchen equipment.
2. Demolition of the remaining area of the cafeteria,
3. Design including audio equipment, and
4. Construction of the conference center.

There will be minimal impact to employees during this project. OARM anticipates the center will open in less than two years.

Upcoming Public Events

None

Upcoming Major Decisions

None

Last Weeks Highlights

On April 20, 2017, the EPA Suspension and Debarment Program negotiated and executed an administrative agreement with Berkshire Power Company, LLC and EIF Berkshire Holdings, LLC. Berkshire Power Company was convicted of conspiracy to violate the Clean Air Act, and other criminal violations of that statute. The criminal conduct involved a scheme to evade compliance with the Clean Air Act by tampering with the Continuous Emissions Monitoring System, a system which continuously samples, measures and records the concentration of regulated air pollutants. Under the agreement, the company will implement a number of remedial measures and internal controls to ensure ethical business conduct and compliance with environmental laws. The three-year agreement effectively resolves the company's statutory disqualification that arose by operation of law under the Clean Air Act and ensures that the government's business interests are protected.

OEI

Weekly Report 05/12/2017

Upcoming Public Events

Open Call with Stakeholders on CROMERR Regulatory Reform Opportunities and Shared Services

Brief description: As part of EPA's implementation of President Trump's Executive Order 13777, "Enforcing the Regulatory Reform Agenda," OEI will be hosting an open call with Cross-Media Electronic Reporting Rule (CROMERR) stakeholders on Thursday, May 11, 2017 at 2:00 PM.

This is an opportunity for stakeholders impacted by the regulation to provide feedback on any modifications or improvements to CROMERR.

In addition to seeking stakeholder input, OEI staff will discuss CROMERR approval process improvements and shared services which reduce implementation burden for co-regulators.

EPA has sent meeting announcements to the Exchange Network community.

Who benefits or cares: EPA and EPA's state, tribal and local government partners.

Why this is important: CROMERR provides the legal framework for electronic reporting under EPA's regulatory programs. The Rule sets performance-based, technology-neutral system standards and provides a streamlined, uniform process for Agency review and approval of electronic reporting.

Additional information:

For more information, please refer to the meeting announcement posted on https://www.epa.gov/cromerr or http://exchange.network.net/.

2017 Exchange Network (EN2017) National Meeting: Innovation and Partnership

Brief description: The E-Enterprise and Exchange Network Interoperability and Operations Team will convene EN2017, the 2017 Exchange Network National Meeting, May 16-18, 2017, at the Sheraton Society Hill Hotel in Philadelphia. The Exchange Network is a partnership among co-regulators from states, tribes, territories and the EPA that drives innovation and efficiency in environmental management through information technology and information management (IT/IM).

The theme for EN2017 is "Innovation and Partnership." During the Meeting, the following examples will be explored:

How innovation can cross Federal, State, Territorial, and Tribal boundaries.

How working creatively together as Partners can identify innovative solutions.

How Partnerships are the new "best practice."

How we can all employ innovation in our daily work.

Each year, Exchange Network partners gather to renew their commitment to collaborative governance and innovation.

This year's meeting will feature public and private sector leaders and address topics such as adopting technology to modernize and transform the business of environmental management.

The program will also feature peer-to-peer learning opportunities and highly interactive discussion sessions.

Mike Flynn will give an update on the E-Enterprise/Exchange Network Vision during the General Session on Tuesday, May 16, 2017 (Opening Day).

Cecil Rodrigues, Acting Regional Administrator, EPA Region 3 will give opening remarks.

Who benefits or cares: States, Tribes, Territories, Citizens, EPA and the Environment.

Why this is important: The Exchange Network supports exchange of essential information among all states, more than 100 tribes, some territories, and EPA.

Additional information:

The meeting is sponsored and organized by the Environmental Council of the States (ECOS) through a cooperative agreement with EPA.

OP

Weekly Report 05/12/2017

9960-75-Region 7	Notice of Approval of Underground Injection Control Program; Occidental Chemical Corporation, Wichita, Kansas
9959-91-OCSPP	Flonicamid; Pesticide Tolerances
9960-50-OCSPP	Fluazinam; Pesticide Tolerances
9962-07-Region 5	Air Plan Approval; Ohio; Volatile Organic Compound Control Rules
9962-01-Region 1	Air Plan Approval; NH; Nonattainment New Source Review and Prevention of Significant Deterioration Permit Program Revisions; Public Hearing Revisions for State Permitting Programs; Withdrawal of Permit Fee Program; Infrastructure Provisions for National Ambient Air Quality Standards
9962-02-Region 1	Air Plan Approval; NH; Nonattainment New Source Review and Prevention of Significant Deterioration Permit Program Revisions; Public Hearing Revisions for State Permitting Programs; Withdrawal of Permit Fee Program; Infrastructure Provisions for National Ambient Air Quality Standards
9961-96-Region 6	Proposed NPDES General Permit for New and Existing Sources and New Dischargers in the Offshore Subcategory of the Oil and Gas Extraction Category for the Western Portion of the Outer Continental Shelf of the Gulf of Mexico (GMG290000)
9961-94-OCSPP	Receipt of Information Under the Toxic Substances Control Act
9961-93-Region 10	Approval and Promulgation of Implementation Plans; Alaska: Infrastructure Requirements for the 2010 Nitrogen Dioxide and 2010 Sulfur Dioxide Standards
9961-88-Region 4	Air Plan Approval; TN: Non-interference Demonstration for Federal Low-Reid Vapor Pressure Requirement in Shelby County
9961-87-Region 3	Approval and Promulgation of Air Quality Implementation Plans; West Virginia; Infrastructure Requirements for the 2012 Fine Particulate Standard
9961-78-Region 9	Delegation of New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants for the States of Arizona and Nevada

9961-79-Region 9	Delegation of New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants for the States of Arizona and Nevada
9961-73-Region 4	Air Plan Approval; North Carolina Repeal of Transportation Facilities Rules
9961-74-Region 4	Air Plan Approval; North Carolina Repeal of Transportation Facilities Rules
9961-51-Region 10	Public Water Supply Supervision Program; Program Revision for the State of Idaho
9961-43-Region 4	Air Plan Approval; Georgia: Heavy Duty Diesel Requirements
9961-44-Region 4	Air Plan Approval; Georgia: Heavy Duty Diesel Requirements
9961-38-Region 3	Approval and Promulgation of Air Quality Implementation Plans; Maryland; Revisions and Amendments to Regulations for Continuous Opacity Monitoring, Continuous Emissions Monitoring, and Quality Assurance Requirements for Continuous Opacity Monitors; Correction
9961-33-OCSPP	Access to Confidential Business Information by Artic Slope Mission Services, LLC
9960-67-Region 6	Approval and Promulgation of Implementation Plans; Oklahoma; Revisions to Minor New Source Review Permitting Program
9960-60-ORD	Ambient Air Monitoring Reference and Equivalent Methods: Designation of One New Equivalent Method
9960-42-Region 10	Air Plan Approval; ID, Updates to Incorporations by Reference
9960-43-Region 10	Air Plan Approval; ID, Updates to Incorporations by Reference
9960-31-OCSPP	Certain New Chemicals; Receipt and Status Information for February 2017
9960-21-Region 6	Approval and Promulgation of Implementation Plans; Texas; Revisions to Emissions Banking and Trading Programs and Compliance Flexibility
9960-22-Region 6	Approval and Promulgation of Implementation Plans; Texas; Revisions to Emissions Banking and Trading Programs and Compliance Flexibilit

9960-15-Region 6	Direct Final Rule: Approval and Promulgation of Implementation Plans; Texas; Clean Air Act Requirements for Vehicle Inspection and Maintenance, Nonattainment New Source Review and Emission Statements
9960-14-Region 6	Proposal: Approval and Promulgation of Implementation Plans; Texas; Clean Air Act Requirements for Vehicle Inspection and Maintenance, Nonattainment New Source Review and Emission Statements
9959-94-OCSPP	Access to Confidential Business Information by Artic Slope Mission Services, LLC
9959-88-OCSPP	Access to Confidential Business Information by Versar, Inc. and its Identified Subcontractors
9959-56-OCSPP	Access to Confidential Business Information by Eastern Research Group, Inc. and its Identified Subcontractors, Avanti Corporation and BeakerTree Corporation
9958-76-Region 2	Petition for Objection to State Operating Permit; NY; Seneca Energy II, LLC
9956-76-OEI	Cross-Media Electronic Reporting: Authorized Program Revision Approval, State of Colorado
9956-77-OEI	Cross-Media Electronic Reporting: Authorized Program Revision Approval, State of Vermont
9962-31-OCSPP	Pesticides; Certification of Pesticide Applicators Rule Extension of Effective Date
9960-68-Region 2	Approval and Revision of Air Quality Implementation Plans; State of New York; Regional Haze State and Federal Implementation Plans
9961-91-Region 4	Air Plan Approval; Kentucky; Infrastructure Requirements for the 2012 PM2.5 National Ambient Air Quality Standard
9961-89-Region 4	Air Quality Plans; Tennessee; Infrastructure Requirements for the 2012 PM2.5 National Ambient Air Quality Standard
9962-03-Region 1	2017 Spring Joint Meeting of the Ozone Transport Commission and the Mid-Atlantic Northeast Visibility Union
9962-08-Region 5	Air Plan Approval; Indiana; Commissioner's Order for Carmeuse Lime, Inc
9962-09-Region 5	Air Plan Approval; Indiana; Commissioner's Order for Carmeuse Lime, Inc

9962-10-Region 5	Air Plan Approval; Indiana; Commissioner's Orders for SABIC Innovative Plastics
9962-11-Region 5	Air Plan Approval; Indiana; Commissioner's Orders for SABIC Innovative Plastics
9960-84-OCSPP	TSCA Reporting and Recordkeeping Requirements; Standards for Small Manufacturers and Processors; Reopening of Comment Period
9962-25-OAR	Determinations of Attainment by the Attainment Date, Determinations of Failure to Attain by the Attainment Date and Reclassification for Certain Nonattainment Areas for the 2006 24-Hour Fine Particulate Matter National Ambient Air Quality Standards
9961-86-Region 3	Approval and Promulgation of Air Quality Implementation Plans; Virginia; Removal of Stage II Gasoline Vapor Recovery Requirements for Gasoline Dispensing Facilities
9961-86-Region 3	Approval and Promulgation of Air Quality Implementation Plans; Virginia; Removal of Stage II Gasoline Vapor Recovery Requirements for Gasoline Dispensing Facilities
9961-30-OCSPP	Notice of Public Meeting and Opportunity to Comment
9959-69-OEI	Air Pollution Regulations for Outer Continental Shelf (OCS) Activities/ICR No.1601.09
9958-71-OCSPP	Registration Review Draft Risk Assessments for Linuron and Several Pyrethroids; Re-Opening of the Comment Period
9961-16-Region 1	Air Plan Approval; CT; Infrastructure Requirement for the 2010 Sulfur Dioxide National Ambient Air Quality Standard
9961-25-Region 3	Approval and Promulgation of Air Quality Implementation Plans; Maryland; New Regulations for Architectural and Industrial Maintenance Coatings
9961-24-Region 1	Air Plan Approval; ME; Motor Vehicle Fuel Requirements
9960-65-OCSPP	Chemical Data Reporting; Requirements for Inorganic Byproduct Chemical Substances
9961-17-Region 3	Approval and Promulgation of Air Quality Implementation Plans; Maryland; 2016 Nitrogen Oxides Averaging Plan Consent Agreement with Raven Power
9961-18-Region 1	Air Plan Approval; ME; Decommissioning of Stage II Vapor Recovery Systems

9961-21-Region 2	Approval and Promulgation of Implementation Plans; Reasonably Available Control Technology for Oxides of Nitrogen for Specific Sources in the State of New Jersey
9959-68-Region 1	Air Plan Approval; NH; Infrastructure Requirements for the 2010 Sulfur Dioxide National Ambient Air Quality Standards

OGC

Weekly Report 05/12/2017

Hot Issues

A Notice of Intent (NOI), dated May 3, 2017, was received from the Idaho Conservation League, which expresses the intent to bring suit against the EPA for "systematically failing to undertake nondiscretionary duties and/or systematic unreasonable delay" in addressing the Agency's NPDES expired permit backlog in Idaho.

On May 3, 2017, the Center for Biological Diversity filed a complaint alleging that EPA failed to perform its mandatory duty to make final determinations as to whether the Philadelphia-Wilmington-Atlantic City and the Washington DC nonattainment areas attained the 2008 ozone NAAQS by their July 20, 2016 attainment dates.

On May 08, 2017, the Agency received a petition for review under Clean Water Act section 509 of a final response to petitions to withdraw approval of Alabama's NPDES program, filed on May 2 in the Court of Appeals for the Eleventh Circuit on behalf of seven environmental groups (*Cahaba Riverkeeper et al. v. Pruitt et al.*).

New Mexico has filed a motion in the U.S. Supreme Court for leave to file a bill of complaint against Colorado, seeking to hold Colorado liable under CERCLA, RCRA, and federal common law for the release of hazardous waste on August 5, 2015 from the Gold King Mine in Colorado. The Office of the Solicitor General anticipates filing its invitation brief by May 23, 2017, and a decision by the Court is anticipated by end of June 2017.

Upcoming Public Events in the Next Two Weeks

05/19 David Fotouhi, Deputy General Counsel, will be speaking at the American Bar Association's Section on Environment, Energy and Resources (SEER) Pesticide Chemical Regulation and Right to Know's (PCRRTK) Friday Breakfast Forum. David will speak on the administration's regulatory reform initiative, how it impacts EPA and EPA rulemakings past, present and future.

Upcoming Major Deadlines in the Next Two Weeks

05/12 Government's Motion to Dismiss is due in *Public Citizen v. Trump, et. al*, a lawsuit with several causes of action including that EO 13771 violates: (i) separation of powers, (ii) the "take care" clause, and (iii) existing statutory directives by requiring ultra vires considerations in rulemakings, as well as that the OMB guidance is arbitrary and capricious

05/12 Response to Motion for Sanctions due where the complainant alleges that the

EPA failed to timely issue its Final Agency Decision concerning the Complainant's discrimination complaint

05/12 EPA's response to plaintiff's settlement proposal is due in *James River Dischargers Coalition v. EPA*

05/12 EPA's reponse to plaintiff's settlement proposal in a challenge to EPA's 2010 Chesapeake Bay TMDL

05/15 EPA's Reply Brief for Motion to Dismiss or Transfer is due in *Southern Illinois Power Cooperative v. EPA*, a Petition for review of the Air Quality Designations for the 2010 Sulfur Dioxide (S02) Primary National Ambient Air Quality Standard-Round 2

05/15 Comprehensive Description of Compliance Plan is due in *Murray Energy Corp. v. McCarthy*

05/15 Briefs Due Stating Position on Abeyance or Remand in *State of West Virginia, et al. v. EPA*, a Petition for review of EPA's final rule titled "Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units

05/15 Supplemental briefs are due in *State of North Dakota v. EPA*

05/15 A joint status report is due in *NRDC v. EPA*, a FOIA litigation related to EPA's oversight and monitoring of the Michigan Department of Environmental Quality (MDEQ) drinking water program and EPA's knowledge of or involvement in MDEQ's oversight of the monitoring, treatment, and public notification concerning lead in the drinking water in Flint, Michigan

05/15 Substantial completion of a document production is due in a FOIA case concerning EPA's registration of Enlist Duo

05/16 A joint briefing schedule is due in *Judicial Watch, Inc. v.* EPA, a FOIA litigation related to the alleged failure to respond to a FOIA request for certain records relating to the use and approval of a messaging application called "Signal" from July 2014 to the present

05/16 EPA must file its response to petitioner's motion for rehearing *en banc* in *Center for Regulatory Reasonableness v. EPA*

05/17 The Government's Brief is due in *U.S. v. Volkswagen AG*, a case where a private citizen is appealing the denial of his motion to intervene in the US enforcement action against VW (district court denied on the ground that he was trying to bring different claims)

05/17 EPA's response is due in *SCST Engineering v. EPA*, a GAO protest where the protestor alleges that the Agency improperly removed SCST from the competition for a Superfund design and engineering services contract

05/18 Response to Sierra Club's motion to intervene in Wyoming's challenge of transport SIP approval/disapproval is due

05/18 Deadline for EPA to file Motion for Reconsideration of June 2nd filing deadline for Certified Index to the Administrative Record as to email record documents, regarding EPA's registration of "Enlist Duo" under FIFRA

05/19 Answer due in *Bill Green v. EPA*, where the plaintiffs allege a failure to respond to petition requesting that the Administrator object to the Title V operating permit for the U.S. Department of Energy Hanford Site

05/19 Answer or Motion to Dismiss is due in *Confederated Tribes and Bands of the Yakama Nation v. Air Liquide America Corp., et al.*, a CERCLA 107(a) cost recovery action against defendants, including the United States (U.S. Corps of Engineers and U.S. Coast Guard), at the Portland Harbor NPL Site

05/19 EPA's Response to Motion to Set Aside Consent Decree and Petition for Restitution is due in *U.S. v. Conner*

05/19 EPA must file its answer in *Anacostia Riverkeeper v. Pruitt*, a challenge to EPA R3's revised approval of DC/MD TMDL for bacteria for the Potomac River

05/22 EPA's Amended Answer is due in *PEER v. EPA*, a FOIA case concerning the Office of Water's (OW) response to multiple FOIA requests seeking certain records relating to a Draft Protective Action Guide (PAG) for Drinking Water

05/22 EPA must file a reply to its motion for a stay of district court's order that EPA approve/disapprove West Virginia's constructive submission no TMDLs for waters with biological impairments in *Ohio Valley Environmental Coalition v. Pruitt*

05/23 Petition for Writ of Certiorari asking for review of D.C. Circuit decision upholding EPA's treatment of malfunctions in the air toxics standards for major and area source boilers is due in *American Municipal Power v. EPA*

05/24 EPA's Reply to Appellant's Opposition to EPA's Motion for Summary Affirmance is due in *Hall & Associates v. EPA* (pending court order) in FOIA litigation concerning an EPA Clean Water Act determination to impose an

effluent limitation for total nitrogen on certain New Hampshire publicly owned treatment works

05/24 EPA's response brief is due in *CLF v. EPA*, an appeal of dismissal of citizen suit complaint alleging nondiscretionary duty for EPA to issue NPDES permits for stormwater discharges identified in TMDLs in Rhode Island

05/25 Motion to Govern due in *State of Texas, et. al v. EPA*, a petition for review of EPA's final rule titled "Protection of Visibility: Amendments to Requirements for State Plans"

05/25 Hearing on EPA's Motion for Stay and Referral in *NRDC, et al v. Pruitt*, a mandatory duty lawsuit alleging that California water rights permit decisions are new and revised CWA WQS

05/26 Answer due in *Sierra Club v. EPA*, a case concerning Clean Air Act deadlines related to Commercial and Industrial Solid Waste Incinerators and other categories of Solid Waste Incinerators

05/26 EPA's Renewed Motion for Summary Judgment is due in *Pulliam v. EPA*, a FOIA litigation concerning an OIG failure to respond to a request seeking documents related to a possible investigation of Christine Todd Whitman

05/26 EPA's Reply in Support of its Motion for Summary Judgment and Opposition to Plaintiff's Motion for Summary Judgment is due in *Energy & Environment Legal Institute v. EPA*, a FOIA litigation concerning EPA's registration of Enlist Duo – an herbicide developed for use on genetically engineered corn and soybean crops

Last Week Highlights

On May 8, Judge Chesney of the Northern District of California issued an order concerning litigation regarding two neonicitinoid pesticides, chlothianidin and thiamethoxam. The judge ruled in favor of EPA on the FIFRA and APA issues, but ruled against the Agency on ESA issues. The court found that EPA had an obligation to consult with the FWS regarding certain pesticide product registrations.

OGC and Region 4 had a positive meeting with the Director and key staff of the Alabama Department of Environmental Management. The Acting General Counsel and senior staff travelled to Alabama to discuss the possibility of a collaborative path forward on pending Title VI complaints regarding ADEM.

The United States entered into a settlement agreement with the Pebble Partnership

regarding a potential mine in Bristol Bay, Alaska. In exchange for initiating proceedings to withdraw a proposed determination and providing Pebble time to file a permit application and pursue a permit with the Army Corps of Engineers, Pebble agreed to dismiss all of its lawsuits, withdraw all of its FOIA requests, not file additional FOIA requests, not challenge the agency's use of the Bristol Bay Watershed Assessment, and pay its own costs.

OCSPP

Weekly Report 05/12/2017

Important deadlines

TSCA New Chemicals Determinations

Determination Type	Pending on 5/2/2017	Pending on 5/9/2017	Determinations Completed* as of 5/2/2017	Determinations Completed* as of 5/9/2017
# of "not likely" determinations	-	-	81	84
# of §5(e) Orders signed by both EPA and the submitter	-	-	168	171
# of §5(e) Orders signed by EPA and awaiting submitter signature	36	50	-	-
# of cases in Order development process	289	279	-	-
# of cases flagged for in-depth review	106	107	-	-
# of PMNs awaiting FOCUS (within 90- or 30-day review)	56	45	-	-
# of LVE/LOREX exemption grants	-	-	240	251
# of LVE/LOREX exemption denials	-	-	204	213
Total number of cases	**487****	**481****	**693**	**719**
Backlog	**187**	**181**	**-**	**-**

* "Determinations Completed" means that EPA has completed its reviews on these cases and that final determinations have been made by EPA under TSCA section 5(a)(3).
** Of these cases, approximately 300 cases are the normal active workload for the New Chemicals Program.

Hot Issues

TSCA Framework Rules on Prioritization & Risk Evaluation

OCSPP is meeting with OMB on May 12 to discuss upcoming expedited interagency review. The rules will undergo expedited Final Agency Review next week, with

submission to OMB to follow shortly thereafter.

Response to NASDA's Request to Extend Implementation of Revised Provisions to the Agricultural Work Protection Standard Rule (WPS)
OCSPP has signed a letter granting NASDA's request to extend the implementation of all revised provisions to the Agricultural WPS rule until the necessary guidance and training materials have been completed which would allow state pesticide agencies to successfully implement the rule changes. Next Steps: We will soon begin the regulatory process to formally extend the compliance date for all revised provisions of the WPS.

UPCOMING PUBLIC EVENTS

May 15 - OCSPP's Office of Pollution Prevention and Toxics will host the Safer Choice Partner of the Year Awards in Oxon Hill, Maryland. Winners demonstrated outstanding achievement in 2016 for the design, manufacture, and promotion of cleaning and other products that carry the Safer Choice label for use in households and facilities nationwide. This year's Partner of the Year award winners represent a wide variety of leadership organizations, from across 17 states and the District of Columbia. Participants include Fortune 500 companies, small- and medium-sized businesses, and non-governmental organizations.

May 16 – Wendy Cleland-Hamnett will participate as a guest speaker at the Consumer Specialty Products Association (CSPA) Mid-Year Meeting in National Harbor, MD, speaking about OCSPP priorities for the coming year and plans for implementing the recent TSCA amendments. Approximately 150 CSPA member companies, including small and medium-sized businesses, are expected to be in attendance.

May 17- The Office of Pesticide Programs will speak at the American Mosquito Control Association's (AMCA) Annual Conference in Washington, D.C. OPP staff are scheduled to present on risk assessments currently being conducted for several pesticides used for mosquito control; and, will provide a general overview of the Endangered Species Act pesticide consultation process.

May 24 - EPA will hold a public meeting to discuss approaches and obtain feedback on assigning and applying unique identifiers when a confidential business information (CBI) claim for chemical identity is approved.

UPCOMING DECISIONS

Taking Public Comment on Extending the Effective Date for the Certification of Pesticide Applicators Rule
On May 15, a Notice will be issued in the Federal Register requesting comment to extend the effective date of the certification of pesticide applicators rule (C&T) by 12 months.

We will be taking comment for 5 days. The final C&T rule (issued January 4, 2017) revises regulations concerning the certification of pesticide applicators who apply restricted use pesticides.

LAST WEEK HIGHLIGHTS

CDR Requirements for Inorganic Byproduct Chemical Substances, Public Meeting
The Lautenberg amendments to TSCA require EPA to implement a process of negotiated rulemaking on changes to Chemical Data Reporting (CDR) requirements to reduce burdens of reporting for inorganic byproducts. On May 9-10, OCSPP held a public meeting prior to the establishment of the negotiated rulemaking committee in order to exchange information and clarify a number of aspects of inorganic byproduct identification and reporting.

Effective Date of Nanotechnology Reporting and Recordkeeping Rule
On May 8, 2017, OCSPP extended the effective date of the recently-issued TSCA section 8(a) Nanotechnology Reporting and Recordkeeping Requirements Rule from May 12, 2017 to August 14, 2017. This rule establishes reporting and recordkeeping requirements for certain chemical substances when they are manufactured or processed at the nanoscale as described in the rule. OCSPP will also be asking the public for input on its draft guidance document for the rule. This guidance provides answers to questions the Agency has received from manufacturers (includes importers) and processors of certain chemical substances when they are manufactured or processed at the nanoscale, as described in the final rule issued January 12, 2017.

Comment Period Reopened on Need for Revision of Small Business Definition
As required by section 8(a)(C) of the amended Toxic Substance Control Act (TSCA), in December OCSPP requested public comment on the standards for "small manufacturers and processors" used in connection with reporting regulations under TSCA section 8(a). Specifically, OCSPP was seeking input on whether a revision of the existing standards is warranted. "Small manufacturers and processors" are exempt from certain reporting requirements under TSCA. OCSPP has also consulted with the Small Business Administration (SBA) on this matter. In order to provide adequate opportunity for the public to consider the results of EPA's consultation with SBA, OCSPP reopened the comment period on May 9.

To: Purifoy, Tiffany[Purifoy.Tiffany@epa.gov]
Cc: Stanton, MaryA[Stanton.Marya@epa.gov]
From: Boyce, Kenneth
Sent: Tue 4/10/2018 9:51:32 PM
Subject: Landfill Files for FOIA EPA-HQ-2018-005836 (EMAIL BATCH #2)

Question regarding compliance time and process for landfills
RE: MSWL - plan (including rule amendment)
RE: MSWL - plan (including rule amendment)
MSWL - plan (including rule amendment)
RE: Petition for Regulatory Change, Adopting a Landfills Plan and Amending 20.11.63, 20.11.64, and 20.11.71 NMAC
Read: Petition for Regulatory Change, Adopting a Landfills Plan and Amending 20.11.63, 20.11.64, and 20.11.71 NMAC
RE: Petition for Regulatory Change, Adopting a Landfills Plan and Amending 20.11.63, 20.11.64, and 20.11.71 NMAC
Read: Petition for Regulatory Change, Adopting a Landfills Plan and Amending 20.11.63, 20.11.64, and 20.11.71 NMAC
FW: Petition for Regulatory Change, Adopting a Landfills Plan and Amending 20.11.63, 20.11.64, and 20.11.71 NMAC
RE: Emailing: 17.05-30-jo - TCEQ Landfill SIP Extension Reply Letter.docx
RE: Landfills submittal
FW: Control R6-17-000-8205 Hyde - TCEQ request extension for MSWLs

Kenneth (Ken) Boyce

Ozone and Infrastructure Section (6MM-MB)

EPA Region 6

214-665-7259

To: Boyce, Kenneth[boyce.kenneth@epa.gov]
From: Olson, Janice
Sent: Tue 5/30/2017 7:53:36 PM
Subject: FW: Control R6-17-000-8205 Hyde - TCEQ request extension for MSWLs
R6-17-000-8205 Hyde - TCEQ request extension for MSWLs.docx

.....
,,,,,
Sorry, I should have copied you on this.

Janice

Janice Olson

Administrative Assistant &

Communications Specialist

Cube 11.171 ~ Ext.: 2791 ~ R6-6MM-A

Someday is just another word for never. Live your someday today.

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From: Olson, Janice
Sent: Tuesday, May 30, 2017 2:47 PM
To: Stanton, Marya
Subject: Control R6-17-000-8205 Hyde - TCEQ request extension for MSWLs

Hi Mary

I have attached the letter to this email, but if you store it, please send me a copy of the finished product so that I may store it in the Controls folder in the proper folder.

Thanks,

Janice

Janice Olson

Administrative Assistant &

Communications Specialist

Cube 11.171 ~ Ext.: 2791 ~ R6-6MM-A

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To: Boyce, Kenneth[boyce.kenneth@epa.gov]
Cc: Singleton,Kerwin, NMENV[Kerwin.Singleton@state.nm.us]
From: Hollenberg, Cindy, NMENV
Sent: Tue 1/31/2017 10:46:41 PM
Subject: MSWL - plan (including rule amendment)
PropStatePlan_toEPA_1.31.17.docx
Prop_20.2.64NMAC_Revision.docx
Prop_20.2.64NMAC_Replacement.docx
MSWL_HearingNotice_Engl.docx

Hello Ken,

Attached please find the proposed New Mexico Section 111(d) plan to fulfill the requirements of 40 CFR 60 Subpart Cf. This proposed plan is complete except for the hearing record. We have scheduled a hearing for April 28, 2017 to consider adopting this proposed plan and rule amendments. A copy of the public notice is also attached. This public notice will be published in the New Mexico Register and in the Albuquerque Journal on February 14, 2017 in both English and Spanish. EPA Region 6 will also receive an email notice on that date with links to the documents under consideration.

Please be advised that I have included 2 versions of the rule amendments (for Part 64), although they are substantively identical. One version amends the rule; the redline strikeout version is attached. The other version repeals and replaces the rule; only the replacement is included.

We would appreciate EPA comments by March 31, 2017. This would give us time to make changes as necessary before our technical testimony is due to the Environmental Improvement Board on April 7.

Thank you,
Cindy

NEW MEXICO ENVIRONMENTAL IMPROVEMENT BOARD
NOTICE OF PUBLIC MEETING AND RULEMAKING HEARING

The New Mexico Environmental Improvement Board ("Board") will hold a public hearing on April 28, 2017 at 9:30 a.m. in Room 307 of the State Capitol Building, 490 Old Santa Fe Trail, Santa Fe, New Mexico 87501. The purpose of the hearing is to consider the matter of EIB 16-06 (R), proposed amendments to the Air Quality Control Regulations codified in the New Mexico Administrative Code (NMAC) at 20.2.64 NMAC (Municipal Solid Waste Landfills) and revise the State's plan for implementing the federal emission guidelines for existing municipal solid waste landfills.

The proponent of this regulatory adoption and revision is the New Mexico Environment Department ("NMED").

The purpose of the public hearing is to consider and take possible action on a petition from NMED to amend 20.2.64 NMAC, incorporating by reference the federal emission guidelines codified at 40 CFR 60 Subpart Cf. The State rule is one part of the proposed revised plan which the U.S. Environmental Protection Agency requires the State to develop, demonstrating that NMED is able to implement the emission guidelines. Other parts of the proposed revised plan must include, per Clean Air Act Section 111(d) requirements, a landfill emissions inventory, a complete listing of closed and active landfills for which NMED has jurisdiction, a demonstration of authority to implement the emission guidelines, and a demonstration that public hearing procedures were followed.

The proposed regulatory amendments and revised plan may be reviewed during regular business hours at the NMED Air Quality Bureau office, 525 Camino de los Marquez, Santa Fe, NM 87505, on NMED's web site at https://www.env.nm.gov/air-quality/proposed-regs/, or by contacting Cindy Hollenberg at (505) 476-4356 or cindy.hollenberg@state.nm.us. You may also contact Cindy Hollenberg if you are interested in attending an informational open house on the proposed amendment and revision.

The hearing will be conducted in accordance with 20.1.1 NMAC Rulemaking Procedures – Environmental Improvement Board, the Environmental Improvement Act, Section 74-1-9 NMSA 1978, the Air Quality Control Act Section 72-2-6 NMSA 1978 and other applicable procedures.

All interested persons will be given a reasonable opportunity at the hearing to submit relevant evidence, data, views and arguments, orally or in writing, to introduce exhibits, and to examine witnesses. Persons wishing to present technical testimony must file with the Board a written notice of intent to do so. The notice of intent shall:

(1) identify the person for whom the witness(es) will testify;
(2) identify each technical witness that the person intends to present and state the qualifications of the witness, including a description of their education and work background;
(3) summarize or include a copy of the direct testimony of each technical witness and state the anticipated duration of the testimony of that witness;
(4) list and describe, or attach, each exhibit anticipated to be offered by that person at the hearing; and
(5) attach the text of any recommended modifications to the proposed new and revised regulations.

Notices of intent at the hearing must be received in the Office of the Board not later than 5:00 pm on April 7, 2017, and should reference the docket number, EIB 16-06 (R) and the date of the hearing. Notices of intent to present technical testimony should be submitted to:

Pam Castaneda, Board Administrator
Environmental Improvement Board
P.O. Box 5469
Santa Fe, NM 87502
Phone (505) 827-2425
Fax (505) 827-2836
email: pam.castaneda@state.nm.us

Any member of the general public may testify at the hearing. No prior notification is required to present non-technical testimony at the hearing. Any such member may also offer exhibits in connection with that testimony, so long as the exhibit is not unduly repetitious of the testimony.

A member of the general public who wishes to submit a written statement for the record, in lieu of providing oral testimony at the hearing, shall file the written statement prior to the hearing, or submit it at the hearing.

Persons having a disability who need a reader, amplifier, qualified sign language interpreter, or any other form of auxiliary aid or service to attend or participate in the hearing should contact Pam Castaneda no later than April 18, 2017 at (505) 827-2425 or pam.castaneda@state.nm.us.

The Board may make a decision on the proposed regulatory amendments and revised plan at the conclusion of the hearing, or the Board may convene a meeting after the hearing to consider action on the proposal.

TITLE 20 ENVIRONMENTAL PROTECTION
CHAPTER 2 AIR QUALITY (STATEWIDE)
PART 64 MUNICIPAL SOLID WASTE LANDFILLS

20.2.64.1 ISSUING AGENCY: Environmental Improvement Board.
[20.2.64.1 NMAC – Rp, 20.2.64.1 NMAC, XX/XX/17]

20.2.64.2 SCOPE: All geographic areas within the jurisdiction of the Environmental Improvement Board.
[20.2.64.2 NMAC – Rp, 20.2.64.2 NMAC, XX/XX/17]

20.2.64.3 STATUTORY AUTHORITY: Environmental Improvement Act, Paragraphs (4) and (7) of Subsection (A) of Section 74-1-8 NMSA 1978 and Air Quality Control Act, Section 74-2-1 et seq. NMSA 1978, including specifically, Subsections (A), (B) and (C) of Section 74-2-5 NMSA 1978.
[20.2.64.3 NMAC – Rp, 20.2.64.3 NMAC, XX/XX/17]

20.2.64.4 DURATION: Permanent.
[20.2.64.4 NMAC – Rp, 20.2.64.4 NMAC, XX/XX/17]

20.2.64.5 EFFECTIVE DATE: May XX, 2017.
[20.2.64.5 NMAC – Rp, 20.2.64.5 NMAC, XX/XX/17]
[The latest effective date of any section in this Part is XX/XX/17.]

20.2.64.6 OBJECTIVE: The objective of this Part is to establish requirements for municipal solid waste landfills in order to control emissions of nonmethane organic compounds (NMOC).
[20.2.64.6 NMAC – Rp, 20.2.64.6 NMAC, XX/XX/17]

20.2.64.7 DEFINITIONS: In addition to the terms defined in 20.2.2 NMAC (Definitions), and those defined in 40 CFR 60 Subpart A, all definitions found in 40 CFR Part 60 Subpart XXX apply to new municipal solid waste landfills (MSWLs) and all definitions found in 40 CFR Part 60 Subpart Cf apply to existing MSWLs. As used in this part:

A. "Active municipal solid waste landfill" or **"active MSWL"** means an MSWL in which solid waste is being placed or an MSWL that is planned to accept waste in the future.

B. "Closed municipal solid waste landfill" or **"closed MSWL"** means an MSWL in which solid waste is no longer being placed, and in which no additional solid wastes will be placed without first filing a notification of modification as prescribed in 40 CFR 60.7(a)(4). Once a notification of modification has been filed and additional solid waste is placed in the MSWL, the MSWL is no longer closed.

C. "Existing municipal solid waste landfill" or **"existing MSWL"** means an active or closed MSWL meeting the following conditions:

(1) Construction, reconstruction, or modification was commenced on or before July 17, 2014; and

(2) The MSWL has accepted waste at any time since November 8, 1987, or has additional design capacity available for future waste deposition.

D. "Modification" means in increase in the permitted volume design capacity of an MSWL by either lateral or vertical expansion based on its permitted design capacity as of July 17, 2014. Modification does not occur until the owner or operator commences construction on the lateral or vertical expansion.

E. "Municipal solid waste landfill" or **"MSWL"** means an entire disposal facility in a contiguous geographical space where household waste is placed in or on land. An MSWL may also receive other types of Resource Conservation and Recovery Act (RCRA) Subtitle D wastes such as commercial solid waste, nonhazardous sludge, conditionally exempt small quantity generator waste, and industrial solid waste. Portions of an MSWL may be separated by access roads. An MSWL may be publicly or privately owned. An MSWL may be new, existing, or a lateral expansion.

F. "New municipal solid waste landfill" or **"new MSWL"** means an MSWL that commenced construction, reconstruction, or modification after July 17, 2014.

G. "NMOC" means nonmethane organic compounds as measured according to the provisions of either 40 CFR 60 Subpart Cf or 40 CFR 60 Subpart XXX. NMOC may include many compounds commonly

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referred to as VOC (volatile organic compounds) and HAP (hazardous air pollutants).
[20.2.64.7 NMAC – Rp, 20.2.64.7 NMAC, XX/XX/17]

20.2.64.8 [RESERVED]

20.2.64.9 DOCUMENTS: Documents cited in this Part may be viewed at the New Mexico environment department, air quality bureau.
[20.2.64.9 NMAC – Rp, 20.2.64.9 NMAC, XX/XX/17]
[As of April 2013, the air quality bureau is located at 525 Camino de los Marquez, Suite 1, Santa Fe, NM 87505.]

20.2.64.10 to 20.2.64.108 [RESERVED]

20.2.64.109 APPLICABILITY:

A. Existing Municipal Solid Waste Landfills: An owner or operator of an existing (active or closed) MSWL is subject to all provisions specified in 40 CFR 60 Subpart Cf as promulgated by the United States environmental protection agency on July 14, 2016, except as provided for in Section 111 of this part. Physical or operational changes made to an existing MSWL solely to comply with an emission guideline are not considered a modification or a reconstruction and would not subject an existing MSWL to the requirements of a standard of performance for new MSWLs.

B. New Municipal Solid Waste Landfills: In addition to being subject to 20.2.64.110 NMAC new MSWLs are subject to 40 CFR Part 60, Subpart XXX as incorporated by reference in 20.2.77 NMAC (New Source Performance Standards).
[20.2.64.109 NMAC – Rp, 20.2.64.109 NMAC, XX/XX/17]

20.2.64.110 PERMITTING REQUIREMENTS:

A. Operating Permits: New and existing active MSWLs with design capacities greater than or equal to 2.5 million megagrams and 2.5 million cubic meters are subject to permitting requirements under 20.2.70 NMAC (Operating Permits). Closed MSWLs and new and existing MSWLs with design capacities less than 2.5 million megagrams or 2.5 million cubic meters are not subject to permitting requirements under 20.2.70 NMAC unless they are major sources as defined in 20.2.70 NMAC.

B. Construction Permits: Emissions of NMOC from MSWLs subject to this Part (20.2.64 NMAC) shall not be included in applicability determinations under 20.2.72 NMAC or be subject to permit requirements under that part solely on the basis of NMOC emissions.
[20.2.64.110 NMAC – Rp, 20.2.64.110 NMAC, XX/XX/17]

20.2.64.111 REQUIREMENTS FOR EXISTING MUNICIPAL SOLID WASTE LANDFILLS:

A. Requirements for existing (active and closed) MSWLs shall be in accordance with 40 CFR 60 Subpart Cf, except as provided in Subsections B and C below.

B. All reports required in 40 CFR 60 Subpart Cf shall be submitted to the department according to the schedules outlined in that subpart. Additional notifications regarding progress toward meeting the final compliance schedule for control system installation and startup shall be submitted to the department as follows:

(1) Contracts for construction of collection and control systems shall be awarded or orders for purchase of components shall be completed no later than 6 months following submission of the final control plan;

(2) On-site construction or installation of the collection and control system shall be initiated no later than 9 months following submission of the final control plan;

(3) On-site construction or installation of the collection and control system shall be completed no later than 29 months following the submission of an annual NMOC emission rate report showing NMOC emissions equal to or exceeding the emissions threshold in Subpart Cf; and

(4) Initial performance testing shall be scheduled for no later than 150 days following the final compliance date in Subpart Cf.

C. Exceptions: On a case by case basis, an existing active or closed MSWL may apply for a less stringent emission standard or longer compliance schedule than those otherwise required by this Part, provided that the owner or operator demonstrates to the Department:

(1) Unreasonable cost of control including, but not limited to MSWL age, location, or basic design;

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(2) Physical impossibility or impracticability of installing necessary control equipment; or

(3) Other environmental factors specific to the MSWL that make application of a less stringent standard or final compliance time significantly more reasonable.

[20.2.64.111 NMAC – Rp, 20.2.64.111 NMAC, XX/XX/17]

HISTORY OF 20.2.64 NMAC:

Pre-NMAC History: None.

History of Repealed Material:

20.2.64 NMAC, Municipal Solid Waste Landfills, filed XX/XX/XX – Repealed effective XX/XX/17.

Other History:

20 NMAC 2.64, Municipal Solid Waste Landfills, filed 11/14/96 was renumbered, reformatted and replaced by 20.2.64 NMAC, Municipal Solid Waste Landfills, effective 10/31/02. 20.2.64 NMAC, Municipal Solid Waste Landfills, filed XX/XX/XX was replaced by 20.2.64 NMAC, Municipal Solid Waste Landfills, effective XX/XX/17.

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TITLE 20 ENVIRONMENTAL PROTECTION
CHAPTER 2 AIR QUALITY (STATEWIDE)
PART 64 MUNICIPAL SOLID WASTE LANDFILLS

20.2.64.1 ISSUING AGENCY: Environmental Improvement Board.
[12/20/96; 20.2.64.1 NMAC - Rn, 20 NMAC 2.64.100 10/31/02]

20.2.64.2 SCOPE: All geographic areas within the jurisdiction of the Environmental Improvement Board.
[12/20/96; 20.2.64.2 NMAC - Rn, 20 NMAC 2.64.101 10/31/02]

20.2.64.3 STATUTORY AUTHORITY: Environmental Improvement Act, Paragraphs (4) and (7) of Subsection (A) of Section 74-1-8 NMSA 1978 and Air Quality Control Act, Section 74-2-1 et seq. NMSA 1978, including specifically, Subsections (A), (B) and (C) of Section 74-2-5 NMSA 1978.
[12/20/96; 20.2.64.3 NMAC - Rn, 20 NMAC 2.64.102 10/31/02]

20.2.64.4 DURATION: Permanent.
[12/20/96; 20.2.64.4 NMAC - Rn, 20 NMAC 2.64.103 10/31/02]

20.2.64.5 EFFECTIVE DATE: December 20, 1996.
[12/20/96; 20.2.64.5 NMAC - Rn, 20 NMAC 2.64.104 10/31/02]
[The latest effective date of any section in this Part is [~~10/31/02~~] XX/XX/17.]

20.2.64.6 OBJECTIVE: The objective of this Part is to establish requirements for municipal solid waste landfills in order to control emissions of nonmethane organic compounds (NMOC).
[12/20/96; 20.2.64.6 NMAC - Rn, 20 NMAC 2.64.105 10/31/02]

20.2.64.7 DEFINITIONS: In addition to the terms defined in 20.2.2 NMAC (Definitions), and those defined in 40 CFR 60 Subpart A, [~~as used in this Part:~~] all definitions found in 40 CFR Part 60 Subpart XXX apply to new municipal solid waste landfills (MSWLs) and all definitions found in 40 CFR Part 60 Subpart Cf apply to existing MSWLs. As used in this part:

A. "Active municipal solid waste landfill" or **"active MSWL"** means an MSWL in which solid waste is being placed or an MSWL that is planned to accept waste in the future.

B. "Closed municipal solid waste landfill" or **"closed MSWL"** means an MSWL in which solid waste is no longer being placed, and in which no additional solid wastes will be placed without first filing a notification of modification as prescribed in 40 CFR 60.7(a)(4). Once a notification of modification has been filed and additional solid waste is placed in the MSWL, the MSWL is no longer closed.

[~~A.~~]**C. "Existing municipal solid waste landfill"** or **"existing MSWL"** [~~is an~~] means an active or closed MSWL meeting the following conditions:

(1) Construction, reconstruction, or modification was commenced [~~before May 30, 1991~~] on or before July 17, 2014; and

(2) The MSWL has accepted waste at any time since November 8, 1987, or has additional design capacity available for future waste deposition.

D. "Modification" means in increase in the permitted volume design capacity of an MSWL by either lateral or vertical expansion based on its permitted design capacity as of July 17, 2014. Modification does not occur until the owner or operator commences construction on the lateral or vertical expansion.

[~~B.~~]**E. "Municipal solid waste landfill [~~(MSWL)~~]"** or **"MSWL"** means an entire disposal facility in a contiguous geographical space where household waste is placed in or on land. An MSWL may also receive other types of Resource Conservation and Recovery Act (RCRA) Subtitle D wastes such as commercial solid waste, nonhazardous sludge, conditionally exempt small quantity generator waste, and industrial solid waste. Portions of an MSWL may be separated by access roads. An MSWL may be publicly or privately owned. An MSWL may be new, existing, or a lateral expansion.

[~~C.~~]**F. "New municipal solid waste landfill"** or **"new MSWL"** [~~is~~] means an MSWL that commenced construction, reconstruction, or modification[~~, or began accepting waste on or after May 30, 1991~~] after July 17, 2014.

[**D.**]**G. "NMOC"** means nonmethane organic compounds as measured according to the provisions of [~~40~~

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~~CFR 60.754~~] either 40 CFR 60 Subpart Cf or 40 CFR 60 Subpart XXX. [~~This~~] NMOC may include many compounds commonly referred to as VOC (volatile organic compounds) and HAP (hazardous air pollutants).
[12/20/96; 20.2.64.7 NMAC - Rn, 20 NMAC 2.64.107 10/31/02; A, XX/XX/17]

20.2.64.8 [RESERVED]

20.2.64.9 DOCUMENTS: Documents cited in this Part may be viewed at the New Mexico [~~Environment Department, Air Quality Bureau, Harold Runnels Building, 1190 St. Francis Drive, Santa Fe, NM 87505 [2048 Galisteo St., Santa Fe, NM 87505]~~] environment department, air quality bureau.
[12/20/96; 20.2.64.9 NMAC - Rn, 20 NMAC 2.64.108 10/31/02; A, XX/XX/17]
[As of April 2013, the air quality bureau is located at 525 Camino de los Marquez, Suite 1, Santa Fe, NM 87505.]

20.2.64.10 to 20.2.64.108 [RESERVED]

20.2.64.109 APPLICABILITY:

A. Existing Municipal Solid Waste Landfills: An owner or operator of an existing (active or closed) MSWL is subject to all provisions specified in [~~40 CFR 60.751 through 60.759 as promulgated by US EPA on March 12, 1996~~] 40 CFR 60 Subpart Cf as promulgated by the United States environmental protection agency on July 14, 2016, except as provided for in [~~20.2.64.111 NMAC~~] Section 111 of this part. [~~Physical or operational changes made to an existing MSWL solely to comply with this Part are not considered a modification or reconstruction and would not subject an existing MSWL to the requirements of 40 CFR 60 Subpart WWW.~~] Physical or operational changes made to an existing MSWL solely to comply with an emission guideline are not considered a modification or a reconstruction and would not subject an existing MSWL to the requirements of a standard of performance for new MSWLs.

B. New Municipal Solid Waste Landfills: In addition to being subject to 20.2.64.110 NMAC new MSWLs are subject to 40 CFR Part 60, Subpart [~~WWW~~] XXX as incorporated by reference in 20.2.77 NMAC (New Source Performance Standards).
[12/20/96; 20.2.64.109 NMAC - Rn, 20 NMAC 2.64.109 10/31/02; A, XX/XX/17]

20.2.64.110 PERMITTING REQUIREMENTS:

A. Operating Permits: New and existing active MSWLs with design capacities greater than or equal to 2.5 million megagrams [~~or~~] and 2.5 million cubic meters are subject to permitting requirements under 20.2.70 NMAC (Operating Permits). Closed MSWLs and new and existing MSWLs with design capacities less than 2.5 million megagrams or 2.5 million cubic meters are not subject to permitting requirements under 20.2.70 NMAC unless they are major sources as defined in 20.2.70 NMAC.

B. Construction Permits: Emissions of NMOC from MSWLs subject to this Part (20.2.64 NMAC) shall not be included in applicability determinations under 20.2.72 NMAC or be subject to permit requirements under that part solely on the basis of NMOC emissions.
[12/20/96; 20.2.64.110 NMAC - Rn, 20 NMAC 2.64.110 10/31/02; A, XX/XX/17]

20.2.64.111 REQUIREMENTS FOR EXISTING MUNICIPAL SOLID WASTE LANDFILLS:

A. [~~Reporting and Compliance: Except as provided for below, reporting and compliance requirements for existing MSWLs shall be in accordance with 40 CFR 60.757 and 60.758.~~

~~**(1)** Within 90 days of final US EPA approval of this Part, an owner or operator of an existing MSWL shall submit an initial design capacity report in accordance with 40 CFR 60.757(a)(2) to the Department.~~

~~**(2)** Within 90 days of final US EPA approval of this Part, an owner or operator of an existing MSWL, with a design capacity equal to or greater than 2.5 million megagrams or 2.5 million cubic meters, shall submit an NMOC emission rate report in accordance with 40 CFR 60.757(b)(1) and (2) to the Department.~~

~~**(3)** Within 30 months after final US EPA approval of this Part, an existing MSWL with a design capacity greater than or equal to 2.5 million megagrams or 2.5 million cubic meters, and with an NMOC emission rate greater than or equal to 50 megagrams per year shall install a gas collection and control system as specified in 40 CFR 60.752(b).~~] Requirements for existing (active and closed) MSWLs shall be in accordance with 40 CFR 60 Subpart Cf, except as provided in Subsections B and C below.

B. All reports required in 40 CFR 60 Subpart Cf shall be submitted to the department according to the schedules outlined in that subpart. Additional notifications regarding progress toward meeting the final

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compliance schedule for control system installation and startup shall be submitted to the department as follows:

(1) Contracts for construction of collection and control systems shall be awarded or orders for purchase of components shall be completed no later than 6 months following submission of the final control plan;

(2) On-site construction or installation of the collection and control system shall be initiated no later than 9 months following submission of the final control plan;

(3) On-site construction or installation of the collection and control system shall be completed no later than 29 months following the submission of an annual NMOC emission rate report showing NMOC emissions equal to or exceeding the emissions threshold in Subpart Cf; and

(4) Initial performance testing shall be scheduled for no later than 150 days following the final compliance date in Subpart Cf.

[**B.**]**C.** **Exceptions:** On a case by case basis, an existing active or closed MSWL may apply for a less stringent emission standard or longer compliance schedule than those otherwise required by this Part, provided that the owner or operator demonstrates to the Department:

(1) Unreasonable cost of control including, but not limited to MSWL age, location, or basic design;

(2) Physical impossibility or impracticability of installing necessary control equipment; or

(3) Other environmental factors specific to the MSWL that make application of a less stringent standard or final compliance time significantly more reasonable.

[12/20/96; 20.2.64.111 NMAC - Rn, 20 NMAC 2.64.111 10/31/02; A, XX/XX/17]

HISTORY OF 20.2.64 NMAC:

Pre-NMAC History: None.

History of Repealed Material: **[RESERVED]**

Other History:

20 NMAC 2.64, Municipal Solid Waste Landfills, filed 11/14/96 was renumbered, reformatted and replaced by 20.2.64 NMAC, Municipal Solid Waste Landfills, effective 10/31/02.

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New Mexico State Plan

Implementing the Emission Guidelines for Existing Municipal Solid Waste Landfills (40 CFR 60 Subpart Cf)

The U.S. Environmental Protection Agency (EPA) has promulgated emission guidelines for existing municipal solid waste landfills (MSWLs), codified at 40 CFR 60 Subpart Cf (Subpart Cf). The guidelines, adopted in July 2016, include ten (10) requirements that must be included in a state's, tribe's or local authority's plan. This document consists of seven plan elements, each fulfilling at least one plan requirement, as indicated in Table 1 below.

Adoption by the Environmental Improvement Board (EIB): XX/XX/17
Submittal to the U.S. Environmental Protection Agency (EPA) for Plan approval: XX/XX/17

Table 1: Plan Table of Contents

Plan Requirement	Plan Element Title	Page #
Identification of enforceable State mechanisms selected by the State for implementing the Emission Guidelines	State Responsibilities and Processes under Subpart Cf	2
Demonstration of State's legal authority to carry out the Section 111(d) State plan as submitted	Legal Authority	4
Inventory of existing MSWLs in the State affected by the Emission Guidelines	Inventory of Municipal Solid Waste Landfills in New Mexico	12
Inventory of emissions from existing MSWLs in the State	Emissions Inventory	9
Emission standards for existing MSWLs that are "no less stringent" than those in the Emission Guidelines	20.2.64 NMAC – *Municipal Solid Waste Landfills* (state rule)	(separate document)
State process for review and approval of site-specific gas collection and control system design plans	State Responsibilities and Processes under 40 CFR 60 Subpart Cf	2
Compliance schedules extending no later than 30 months after the date the annual NMOC emission rate reaches or exceeds thresholds in Subpart Cf	20.2.64 NMAC – *Municipal Solid Waste Landfills* (state rule)	(separate document)
Testing, monitoring, recordkeeping, and reporting requirements	20.2.64 NMAC – *Municipal Solid Waste Landfills* (state rule)	(separate document)
Record of public hearing on the State Plan	Record from EIB Rulemaking Proceeding	(Not yet final)
Provision for annual State progress reports to EPA on implementation of State Plan	State Responsibilities and Processes under Subpart Cf	2

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State Responsibilities and Processes under 40 CFR 60 Subpart Cf

1. **Enforceable State mechanism selected to implement the Emission Guidelines**

   The enforceable State mechanism shall be Part 64 – *Municipal Solid Waste Landfills,* a State rule codified at Title 20 – *Environmental Protection*, Chapter 2 – *Air Quality (Statewide)* of the New Mexico Administrative Code.

2. **Initial and amended design capacity reporting to NMED**

   For all active MSWLs – those required and those not required to obtain an operating permit under 20.2.70 NMAC – initial and amended design capacity reports shall be submitted to the Solid Waste Bureau (SWB) of the New Mexico Environment Department ("NMED" or "Department") as part of the permit application process. The information submitted shall include a plot or map of the landfill and all calculations necessary to determine design capacity. Design capacity shall be included in SWB permits. A copy of initial and amended design capacity reports, as submitted to the SWB, shall be submitted to the AQB Permitting Section in accordance with Subpart Cf.

   For design capacity decreases that result in an MSWL no longer requiring an operating permit, complete calculations, including site-specific density calculations, including any documentation to substantiate such calculations, shall be submitted to the AQB's Permitting Section.

3. **Process for review of site-specific gas collection and control system design plans**

   Design plans for gas collection and control systems (GCCS) required under Subpart Cf shall be submitted to the AQB's Permitting Section. This administrative review will determine whether the design plan meets the requirements of Subpart Cf and was prepared by a professional engineer.

   Once the administrative review has shown a design plan to be complete and correct, a letter will be sent by registered mail to the owner or operator of the landfill stating approval or disapproval of the design plan. If any or all of the design plan submittal is disapproved, the letter shall include an explanation of the GCCS design plan deficiencies and a date by which corrections or additions to the disapproved plan are expected.

4. **Review and tracking of reports submitted to the New Mexico Environment Department (NMED)**

   Existing MSWLs which are required to obtain operating permits under 20.2.70 NMAC shall submit semi-annual reports and annual compliance certifications. These submittals shall include non-methane organic compound (NMOC) emission rate reports or methane surface emissions monitoring reports, as required under Subpart Cf. Reports submitted to the AQB Compliance and Enforcement Section are reviewed for completeness and compliance with all applicable regulatory requirements and are tracked in the Department's database.

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Closure and post-closure care plans shall be submitted to the SWB in accordance with 20.9.6 NMAC. This information shall be made available to the AQB upon request. Closure reports meeting the requirements of Subpart Cf shall be submitted to the AQB Permitting Section. Equipment removal reports, in accordance with Subpart Cf, shall be submitted to the AQB Permitting Section.

Initial performance test reports for newly installed GCCSs shall be submitted to the AQB Compliance and Enforcement Section for review and tracking in the Department database.

5. State progress reports to EPA

NMED shall submit annual electronic reports to EPA beginning within 1 year of EPA approval of this plan, summarizing for each affected MSWL:

- Annual NMOC emissions inventory update;
- Enforcement actions in response to compliance schedule or emission limit violations;
- Achievement of increments of progress;
- Identification of MSWLs that have closed;
- Identification of MSWLs that have ceased to operate a control system;
- Updated information, including emission data, on affected MSWLs; and
- Performance test data for GCCSs, along with their operating conditions.

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Legal Authority

Legislative authority for New Mexico's air quality program is set forth in the New Mexico Air Quality Control Act (AQCA), NMSA 1978, §§ 74-2-1 through -17. The AQCA gives the State Environmental Improvement Board (EIB) and NMED the authority to implement the Clean AQCA (CAA) in New Mexico. The New Mexico Solid Waste Act ("Solid Waste Act"), NMSA 1978, §§ 74-9-1 through -43, provides legislative authority for New Mexico's solid waste program, and gives the EIB and NMED the implementing authority.

The regulations implementing CAA programs are set forth in the New Mexico Administrative Code at Title 20, Chapter 2. Many of the regulations codified at 20.2 NMAC are part of the approved New Mexico State Implementation Plan (SIP) and are cited in 40 CFR § 52.1620(c). Some non-SIP regulations are federally-enforceable, while others are only state-enforceable. The regulatory authority to implement Solid Waste Act programs is set forth in Title 20, Chapter 9 NMAC.

Those requirements of CAA § 111(d) that are in the approved SIP or are otherwise codified in Chapter 2 or Chapter 9 of Title 20 of the NMAC address the following:

- enforceable emission limits and schedules for compliance;
- monitoring, source testing and emissions reporting;
- recordkeeping and reporting requirements; and
- permit requirements.

Table 2 below demonstrates New Mexico's existing legal authority to:

1. Adopt emission standards and enforceable conditions;
2. Enforce the relevant laws, regulations, standards and compliance schedules referenced in CAA Section 111(d);
3. Obtain information necessary to determine compliance;
4. Require recordkeeping, make inspections and conduct tests;
5. Require the submission of emission reports by MSWL owners or operators; and
6. Make emission data available to the public.

Table 2: Demonstration of Legal Authority

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Authority requirement	Demonstration
Adopt emission standards and enforceable conditions.	The New Mexico Environmental Improvement Act, NMSA 1978, §§ 74-1-1 through -17, created the New Mexico Environment Department and the New Mexico Environmental Improvement Board. The New Mexico Air Quality Control Act NMSA 1978, §§ 74-2-1 through -17, delegates authority to the EIB to adopt, promulgate, publish, amend and repeal regulations consistent with the Air Act to attain and maintain national ambient air quality standards (NAAQS), and prevent or abate air pollution. The EIB has promulgated rules to limit and control emissions of NMOCs at existing MSWLs and to require large MSWLs to obtain operating permits. These rules include emission standards and enforceable conditions and are found in 20.2.64 NMAC and 20.2.70 NMAC
Enforce the relevant laws, regulations, standards and compliance schedules referenced in Section 111(d).	The AQCA authorizes NMED to enforce the provisions of that statute and associated regulations and permit conditions through administrative compliance orders or commencement of civil actions. *See* NMSA 1978, §74-2-12. The AQCA designates NMED as the air pollution control agency for the State. *See* NMSA 1978 §74-2-2. The Environmental Improvement Act further provides NMED with authority to enforce the state's environmental quality rules. *See* NMSA 1978 §74-1-6(F). The EIB has amended its rule governing emissions of NMOCs from existing MSWLs. *See* 20.2.64 NMAC as amended, attached to this document. This rule incorporates by reference the allowable emission rates, compliance, control plan requirements, actual and allowable emissions, monitoring and testing requirements, recordkeeping and reporting requirements, and control schedules required in Subpart Cf. The rule clarifies the boundaries beyond which regulated sources in New Mexico can expect enforcement action.

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Obtain information necessary to determine compliance.	The EIB's regulations at 20.2.5 NMAC require recordkeeping and reporting of emissions to which an air quality control emission regulation applies. 20.2.64 NMAC requires compliance with 40 CFR 60 Subparts Cf and XXX, which include emission guidelines; compliance times and requirements; control system specifications and operational standards; test methods and procedures; and monitoring, reporting and recordkeeping guidelines. Non-major sources required to obtain an operating permit under federal rules are subject to New Mexico's regulation under 20.2.70 NMAC. Large landfills are included in this category. Part 70 includes requirements for compliance, monitoring, recordkeeping and reporting to NMED. New Mexico's regulations at 20.9.3 NMAC require, as a part of a solid waste permit application, submission of waste acceptance and design capacity information, as well as a closure and post-closure plan.

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Require recordkeeping, make inspections and conduct tests.	The AQCA authorizes NMED to "develop facts and make investigations and studies" as required for enforcement of that act. NMSA 1978, § 74- 2-5.1 (A). This provides NMED with the authority to develop air quality assessments. Non-major sources required by federal rules to obtain an operating permit are subject to 20.2.70 NMAC. Large landfills are included in this category. Part 70 includes requirements for compliance, monitoring, recordkeeping and reporting to NMED. All Part 70 permits must contain provisions for allowing inspections of facilities and their records, including sampling or monitoring of any substances or parameters for permit compliance assurance. The Solid Waste Act authorizes NMED to "enter any solid waste facility at any reasonable time for the purpose of making an inspection or investigation of solid waste management practices;" and to "take samples of the waste, soil, air or water and analyze samples of that waste, soil, air or water." NMSA 1978, §74-9-33 (A). The Solid Waste Act also authorizes NMED to "establish recordkeeping procedures for solid waste transfer, landfill disposal and transformation facilities" that require operators to maintain records and make them available for inspection. NMSA 1978, §74-9-8 (M). New Mexico's regulations at 20.9.2 NMAC allow for site inspections, monitoring, sampling and obtaining records for any solid waste facility by any designee of the Department – specifically the Solid Waste Bureau. New Mexico's regulations at 20.9.5 NMAC require maintenance of operating records at solid waste facilities. The Solid Waste Act authorizes NMED to make inspections of solid waste facilities, and collect and test samples of waste, soil, air, and water from solid waste facilities.
Require the use of monitors and submission of emission reports of MSWL owners or operators.	New Mexico's regulations at 20.2.5 , 20.2.64, and 20.2.70 NMAC require source monitoring for compliance, recordkeeping and reporting.

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Make emission data available to the public.	New Mexico's regulation at 20.2.5 NMAC include a provision that all emission data will be made available to the public during normal business hours.

Emissions Inventory for Municipal Solid Waste Landfills

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This report has been prepared for both EPA and the general public, and inventories emissions of NMOCs from MSWLs for the inventory year of 2015. , The most recent reports submitted to NMED were used to obtain the 2015 NMOC annual emissions estimates for existing landfills which are required to submit annual emissions estimates using the Tier I or Tier II calculations based on site-specific information. These large facilities meet the design capacity thresholds found in the previous new source performance standards (40 CFR 60 Subpart WWW) and emission guidelines (40 CFR 60 Subpart Cc), as well as the new emission guidelines in Subpart Cf. Two of these large facilities are no longer required to submit annual NMOC emissions reports and have installed GCCSs. These facilities are now required to report methane emissions based on surface monitoring. NMOC emissions are also estimated based on emissions reporting to NMED for these facilities.

Information regarding smaller facilities was obtained from the NMED Solid Waste Bureau. This information includes design capacity and annual waste acceptance rates. For the smaller facilities, NMOC emissions were estimated using Tier 1calculations, running EPA's Landgem model. Tier 1 calculations typically overestimate emissions, as default values are used in place of site-specific values. Tier 1 calculations using the Landgem model are meant to be a screening tool to identify landfills that are potentially over the emissions threshold for required emissions controls.

This inventory includes both new and existing landfills within NMED's jurisdiction as defined in Subparts Cf and XXX (2016 new source performance standards for new MSWLs).

Closed landfills are not included on this inventory, as separate requirements apply to each, based on closure plans. Further, emissions-related information on closed landfills may be unavailable. Landfills receiving only construction and demolition waste or asbestos are not included since NMOC emissions from these types of facilities will be negligible.

Table 3- Large Existing Landfills:. These landfills meet the design capacity thresholds of 2.5 million megagrams (Mg, equivalent to metric tons) and 2.5 million cubic meters[1] and operate under a Title V

[1] Due to a site-specific waste density calculation on file with the Air Quality Bureau, the Northeastern New Mexico Regional Landfill no longer meets the design capacity threshold and will no longer be required to maintain a Title V permit.

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permit. NMOC emissions for these facilities were taken from annual NMOC emissions reports (Tier I or Tier II) and emissions inventory reporting to the AQB. Emissions inventories from these facilities report uncontrolled NMOC emissions, although the two facilities for which emissions inventory reports were used have and operate gas collection and control systems.

MSWL Name	2015 Waste Acceptance Rate (Mg)	Opening year	Tier I NMOC (Mg/yr)	Tier II NMOC (Mg/yr)	Uncontrolled NMOC from EI (Mg/yr)
Caja del Rio	138,889	1997			51.81
Camino Real	351,088	1977		71.79	
Clovis Regional	92,966	1935		5.56	
Corralitos	149,382	1996		21.58	
Northeastern NM Regional	22,690	1998	32.76		
Otero/Greentree Regional	65,985	1994		11.02	
Red Rock Regional	84,796	1996	11.73		
Rio Rancho	114,153	1985			60.32
Roswell Municipal	40,909	1980		11.24	
San Juan County	109,124	1988		23.41	
Sand Point	82,042	1995		7.36	
Sandoval County	5,455	1972	21.74		
Valencia Regional	75,765	1988		5.95	

Total NMOC Emissions from large existing landfills in 2015 = 336.27 Mg

Table 4 -Small Existing Landfills: These landfills do not meet the thresholds of 2.5 million megagrams (Mg, equivalent to metric tons) or 2.5 million cubic meters and are not required to operate under a Title V permit. NMOC emissions for these facilities were estimated using Tier I calculations through LandGem modeling. Other information for these landfills was provided by the NMED Solid Waste Bureau. As a conservative estimate, the 2015 waste acceptance rate was used for all years. The model parameters used include:

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- Methane generation rate – Inventory Arid Area = 0.02/year
- Potential methane generation capacity – Inventory Arid Area = 100 m^3/Mg
- NMOC Concentration – Inventory Unknown Co-disposal = 600 ppmv as hexane
- Methane content – CAA = 50% by volume

Landfill Name	Year Opened	2015 Waste Acceptance Rate (Mg)	2015 Tier 1 NMOC emissions (Mg)
Butterfield Trail	2010	29,914	1.23
Lea County	1999	96,232	11.35
City of Socorro	2013	12,629	0.21
Taos Regional	2002	29,128	2.87
Estancia Valley Regional LF	1998	25,173	4.27
Tucumcari	2011	8,046	0.27
Southwest NM Regional	1995	24,375	3.46

Total NMOC Emissions from smaller existing landfills in 2015 = 23.66 Mg

Table 5: Summary based on Tables 3 and 4

Landfill Type	# of Landfills	NMOC emissions (Mg)
Large Existing	13	336.27
Smaller Existing	7	23.66
New	0	0
TOTAL	20	**359.93**

Inventory of Municipal Solid Waste Landfills in New Mexico

Table 6 below lists all active and closed landfills which are under the jurisdiction of NMED. Information on these landfills was gathered by NMED's Solid Waste Bureau. Open facilities with the notation "TV" currently have a Title V operating permit through the Air Quality Bureau.

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Table 6: Inventory of MSWLs under the jurisdiction of NMED

County	Facility Name & Location	Status	Owner Name & Address
Catron	Datil Landfill 1.5 miles E of Datil and N. of Hwy 60	Closed	Catron County PO Box 507 Reserve, NM 87830
Catron	Last Frontier Landfill	Closed	Last Frontier Landowners Assn. PO Box 34 Datil, NM 87821
Catron	Quemado Landfill 33 Landfill Road, Quemado	Closed	Catron County 100 Main Street Reserve, NM 87830
Catron	Glenwood Landfill 20 Landfill Road, Glenwood	Locked	Catron County 100 Main Street Reserve, NM 87830
Catron	Pie Town Landfill 15 Hansen House, Pie Town	Locked	Catron County 100 Main Street Reserve, NM 87830
Catron	Reserve Landfill #19 Hudson Ranch Rd., Reserve	Locked	Catron County 100 Main Street Reserve, NM 87830
Chaves	Hagerman Landfill 2 mi south of Hagerman	Closed	Town of Hagerman PO Box 247 Hagerman, NM 88232
Chaves	Roswell Municipal Landfill 3006 Brasher Road, Roswell	Open – TV	City of Roswell PO Box 1838 Roswell, NM 88201
Cibola	Cubero Landfill 0.5 miles SE of Cubero Elementary School, Cubero	Closed	Northwest NM Regional Solid Waste Authority PO Box 1330 Thoreau, NM 87323
Cibola	Lobo Canyon Landfill Lobo Canyon Road, 4 mi north of Grants	Closed	NW NM Regional SWA PO Box 1330 Thoreau, NM 87323
Cibola	San Mateo Landfill SE ¼ Section 14, T13N, R8W	Closed	NW NM Regional SWA PO Box 1330 Thoreau, NM 87323
Cibola	Seboyeta Landfill T11N, R5W, Cebolleta Land Grant	Closed	NW NM Regional SWA PO Box 1330 Thoreau, NM 87323
Colfax	Maxwell Landfill 1 mi southeast of Maxwell	Closed	Village of Maxwell PO Box 356 Maxwell, NM 87728
Colfax	Springer Landfill Portions of Sections 28 and 29, T25N, R22E	Closed	NM Corrections Department PO Box 10 Springer, NM 87747

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Colfax	Raton Landfill County Road A22, east of Raton	Locked	Raton City PO Box 910 Raton, NM 87740
Curry	Cannon Air Force Base Landfill Cannon Air Force Base	Closed	Department of the Air Force / Cannon Air Force Base 506 North D.L. Ingram Blvd. Cannon AFB, NM 88103
Curry	Clovis Landfill T2N, 36E, NW ¼ of Section 21	Closed	City of Clovis 801 S. Norris Clovis, NM 88101
Curry	Clovis Regional Solid Waste Facility Landfill 2801 E. Brady Ave., Clovis	Open - TV	City of Clovis 801 S. Norris Clovis, NM 88101
De Baca	De Baca County Landfill 1899 East Landfill Avenue, Fort Sumner	Closed	County of De Baca PO Box 347 Fort Sumner, NM 88119
De Baca	De Baca County Solid Waste Facility 4 mi east of Fort Sumner	Open	County of De Baca PO Box 347 Fort Sumner, NM 88119
Doña Ana	Las Cruces Foothills Landfill 4755 Foothills Road, Las Cruces	Closed	City of Las Cruces PO Box 20000 Las Cruces, NM 88004
Doña Ana	NASA (Area 700) White Sands Test Facility 12600 NASA Road, Las Cruces	Closed	NASA White Sands Test Facility PO Box 20 Las Cruces, NM 88004
Doña Ana	NM State University Landfill South of Wells Street and East of Locust Street, Las Cruces	Closed	Regents of NM State University PO Box 30001, MSC 3545 Las Cruces, NM 88003
Doña Ana	White Sands Missile Range Main Post Asbestos Landfill 3 mi east of Main Post on Farewell Blvd	Closed	U.S. Army WSMR 100 Headquarters Avenue Attn: IMWE-WSM-PW White Sands Missile Range, NM 88002
Doña Ana	White Sands Missile Range Main Post Landfill 3 mi east of Main Post on Farewell Blvd	Closed	U.S. WSMR 100 Headquarters Avenue Attn: IMWE-WSM-PW White Sands Missile Range, NM 88002
Doña Ana	Camino Real Landfill 1000 Camino Real Blvd Sunland Park	Open – TV	Camino Real Environmental Center, Inc. PO Box 580 Sunland Park, NM 88063
Doña Ana	Corralitos Regional Landfill 14535 Robert Larson Blvd 15 mi west of Las Cruces on I-10	Open – TV	South Central Solid Waste Authority PO Box 1530 Fairacres, NM 88033

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Doña Ana	White Sands Missile Range Main Post C&D Landfill Farewell Blvd	Open	U.S. Army White Sands Missile Range 100 Headquarters Avenue Attn: IMWE-WSM-PW White Sands Missile Range, NM 88002
Eddy	Artesia Landfill 2507 N. Pecos Road 4.5 mi west of Artesia	Closed	City of Artesia 512 W. Texas Ave. PO Box 1310 Artesia, NM 88210
Eddy	Carlsbad Landfill 3.5 mi northeast of Carlsbad	Closed	City of Carlsbad PO Box 1569 302 E. Plaza Street Carlsbad, NM 88221
Eddy	Dark Canyon Landfill 1.5 mi southwest of Carlsbad	Closed	Eddy County 101 West Greene St., Suite 100 Carlsbad, NM 88220
Eddy	Loving Landfill NE ¼ Section 32 T23S R 28E	Closed	Eddy County 101 West Greene St., Suite 100 Carlsbad, NM 88220
Eddy	Lea Land Inc. Industrial Solid Waste Landfill Mile marker 64, Hwy 62/180 East, Carlsbad	Open	Lea Land Inc. 1300 W. Main Street Oklahoma City, OK 73106
Eddy	Sand Point Landfill 164 Landfill Road, Carlsbad	Open - TV	Eddy County 410 East Derrick Road Carlsbad, NM 88220
Grant	Cliff / Gila Landfill 2 mi south of Gila on NM Hwy 211	Closed	County of Grant PO Box 898 Silver City, NM 88062
Grant	Hachita Landfill ½ mi southeast of Hachita on Hwy 9	Closed	County of Grant PO Box 898 Silver City, NM 88062
Grant	Silver City Landfill south of Silver City on N. side of Fairway Drive	Closed	Town of Silver City 101 W. Broadway PO Box 1188 Silver City, NM 88062
Grant	Tri-City Landfill 1 mi northwest of Hurley	Closed	Tri-City Landfill Commission PO Box 728 Bayard, NM 88023
Grant	Southwest NM Regional Landfill 318 Ridge Road, Silver City	Open	Southwest Solid Waste Authority PO Box 2617 Silver City, NM 88062
Guadalupe	Anton Chico Landfill 1030 La Merced Road, Anton Chico	Closed	County of Guadalupe 130 S. Fourth Street Santa Rosa, NM 88435

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Guadalupe	Colonias Landfill 11.2 mi north of I-40 on Hwy 379	Closed	County of Guadalupe 130 S. Fourth Street Santa Rosa, NM 88435
Guadalupe	Cuervo Landfill 2/3 mi south of Cuervo	Closed	City of Santa Rosa 130 S. 4th Street Santa Rosa, NM 88435
Guadalupe	Dilia Landfill ½ mi west of Dilia	Closed	County of Guadalupe 130 S. Fourth Street Santa Rosa, NM 88435
Guadalupe	La Loma Landfill 1 mi north of La Loma	Closed	County of Guadalupe 130 S. Fourth Street Santa Rosa, NM 88435
Guadalupe	Santa Rosa Landfill T9N, R21E, section 36 of Guadalupe Co.	Closed	City of Santa Rosa PO Box 429 244 South 4th Street Santa Rosa, NM 88435
Guadalupe	Vaughn Landfill 1.5 mi northeast of Vaughn	Locked	Town of Vaughn PO Box 278 Vaughn, NM 88353
Harding	Mosquero Landfill Above Orchard Creek, 2 mi east of Mosquero	Closed	Mosquero Village PO Box 116 Mosquero, NM 87733
Harding	Roy Landfill Section 25 T20N, R25E in Harding County	Closed	Village of Roy PO Box 8 Roy, NM 87743
Hidalgo	Animas Landfill ½ mi east on Hwy 9 and 1 mi north on CR CO113	Closed	County of Hidalgo 300 Shakespeare Street Lordsburg, NM 88045
Hidalgo	Lordsburg Landfill 1 mi west of City of Lordsburg	Closed	City of Lordsburg 404 West Wabash Street Lordsburg, NM 88045
Lea	Eunice Landfill NE ¼, Section 36 Township 21 S, R36E	Closed	City of Eunice PO Box 147 Eunice, NM 88231
Lea	Hobbs-Lea County Landfill Northwest intersection of E. Marland St. and Landfill Road, Hobbs	Closed	Waste Management Closed Site Management Group 2615 Davis Street San Leandro, CA 94577
Lea	Jal Landfill SE ¼ Section 24, T25S, R36E	Closed	City of Jal PO Drawer 340 Jal, NM 88252
Lea	Lovington Landfill South ½ of Section 30 & North ½ Section 31 T, Lea County	Closed	City of Lovington PO Box 1269 214 South Love Lovington, NM 88260

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Lea	Lea County Regional Landfill 3219 E. State Road 234, Eunice	Open	Lea County Solid Waste Authority 100 N. Main, Suite 4 Lovington, NM 88260
Lincoln	Capitan Landfill Lot 14A Capitan North Subdivision, Capitan	Closed	Village of Capitan PO Box 246 Capitan, NM 88316
Los Alamos	Los Alamos County Landfill 3701 East Jemez Road, Los Alamos	Closed	County of Los Alamos 901 Trinity Drive PO Box 30 Los Alamos, NM 87544
Los Alamos	Los Alamos National Labs/TA-54 Area J Landfill Mesita del Buey Road, Los Alamos	Closed	U.S. Department of Energy PO Box 1663, Mail Stop A316 Los Alamos, NM 87545
Luna	Columbus Landfill 1.75 mi north and east of Columbus	Closed	Village of Columbus PO Box 350 Columbus, NM 88029
Luna	Deming Landfill 3110 4th Street, NE, Deming	Locked	City of Deming PO Box 706 Deming, NM 88030
Luna	Butterfield Trail Regional Landfill 14 mi west of Deming	Open	City of Deming PO Box 706 Deming, NM 88030
McKinley	Escalante Generating Station 297 County Rd 19, Prewitt	Closed	Tri-State Generation & Transmission Association, Inc. PO Box 33695 Denver, CO 80233
McKinley	Gallup Municipal Landfill Northeast of Gallup near Heaton Arroyo	Closed	City of Gallup PO Box 1270 Gallup, NM 87305
McKinley	Gamerco Landfill SE ¼ Section 31, SW ¼ Section 32, T16N, R18W	Closed	NW NM Regional SWA PO Box 1330 Thoreau, NM 87323
McKinley	Ojo Encino Landfill 300 feet north of the Ojo Encino Navajo Day School	Closed	US Dept. of the Interior, Bureau of Indian Affairs, Navajo Regional Office PO Box 1060 Gallup, NM 87305
McKinley	Ramah Landfill NE ¼ Section 10, T10N, R16W	Closed	Ramah Water and Sanitation PO Box 416 Ramah, NM 87321
McKinley	Smith Lake Landfill 7 mi northeast of Thoreau	Closed	McKinley County 207 West Hill Street Gallup, NM 87301

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McKinley	Red Rocks Landfill 101 Red Mesa Bluffs Drive, Thoreau	Open – TV	Northwest NM Regional Solid Waste Authority PO Box 1330 Thoreau, NM 87323
McKinley	Thoreau Landfill SE ¼ Section 20, T14N, R13W	Closed	NW NM Regional SWA PO Box 1330 Thoreau, NM 87323
Mora	Mora Landfill Section 2, T20N, R15E, Mora County	Closed	Mora County PO Box 580 Mora, NM 87732
Mora	Rainsville Landfill Section 10, T20N, R16E, Mora County	Closed	Mora County PO Box 580 Mora, NM 87732
Mora	Wagon Mound Landfill ½ mi east of Wagon Mound on Roy Highway	Closed	Village of Wagon Mound PO Box 87 Wagon Mound, NM 87752
Mora	Northeastern NM Regional Landfill I-25 at exit 393; 5 mi north of Wagon Mound	Open – TV	Northeastern NM Regional Landfill, LLC PO Box 125 Wagon Mound, NM 87752
Otero	Danley C&D Landfill SW ¼ of Section 32, T2S, R10E	Closed	Western Bank of Alamogordo PO Box 5100 Alamogordo, NM 88311
Otero	Dog Canyon Landfill Dog Canyon Road on southeast corner CR AO16 & AO15	Closed	Otero County 1101 New York Avenue Alamogordo, NM 88310
Otero	Holloman Air Force Base Landfill 1641 Vandergrift Rod, Holloman AFB	Closed	U.S. Air Force / Holloman AFB 550 Tabosa Avenue Holloman AFB, NM 88330
Otero	Timberon Landfill S ½ and NW ¼, Section 1, T20S, R12E	Closed	Mountain Properties, Inc. 95 Piney Woods Lane Sumrall, MS 39482
Otero	Mesa Verde C&D Landfill 601 La Luz Gate Road, Alamogordo	Open	Jeffery G. Rabon 396 La Luz Gate Road Alamogordo, NM 88310
Otero	Otero/Greentree Regional Landfill 24 mi south of Alamogordo, west of US Hwy 54	Open – TV	Otero/Lincoln County Solid Waste Authority 2600 N. Florida Avenue Alamogordo, NM 88310
Quay	Logan Landfill 1 mi south of Logan off Hwy 54	Closed	Village of Logan PO Box 7 Logan, NM 88426
Quay	San Jon Landfill 1 mi west of San Jon on Hwy 40/66	Closed	Village of San Jon PO Box 37 San Jon, NM 88434

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Quay	Tucumcari Landfill County Road AP Section 3	Closed	City of Tucumcari 215 E. Center PO Box 1188 Tucumcari, NM 88401
Quay	Tucumcari Landfill (New) 30652 US Highway 54	Open	City of Tucumcari 215 E. Center PO Box 1188 Tucumcari, NM 88401
Rio Arriba	Canjilon Landfill 1.6 mi south of Canjilon	Closed	Rio Arriba County 1100 Industrial Park Road PO Box 1230 Española, NM 87532
Rio Arriba	Chama Landfill 4 mi southwest of Chama Tierra Amarilla Land Grant	Closed	Village of Chama PO Box 794 Chama, NM 87520
Rio Arriba	Coyote/Youngsville Landfill State Rd 96, ¼ mi west of Youngsville	Closed	Rio Arriba County 1100 Industrial Park Road PO Box 1230 Española, NM 87532
Rio Arriba	El Rito Landfill N ½ Section 15, T24N, R7E	Closed	County of Rio Arriba PO Box 1256 Española, NM 87532
Rio Arriba	Lumberton Landfill SW ¼ Section 34, T32N, R1W	Closed	County of Rio Arriba PO Box 1256 Española, NM 87532
Rio Arriba	Medanales Landfill N ½ Section 34, T23N, R7E	Closed	County of Rio Arriba PO Box 1256 Española, NM 87532
Rio Arriba	Tierra Amarilla Landfill 1000 ft north of Village of Tierra Amarilla on SR 162	Closed	County of Rio Arriba PO Box 1256 Española, NM 87532
Roosevelt	Portales Landfill 1 mi southeast of Portales @ Kilgore and RR7	Closed	City of Portales 100 W. First Street Portales, NM 88130
San Juan	Farmington Landfill Section 20, T29N, R13W adjacent to SR 371	Closed	City of Farmington 800 Municipal Drive Farmington, NM 87401
San Juan	San Juan County Regional Landfill 78 CR 3140, Aztec	Open - TV	San Juan County 100 S. Oliver Drive Aztec, NM 87410
San Miguel	Las Vegas Landfill Northwest of Las Vegas Section 17, T16N, R16E	Closed	City of Las Vegas 1700 N. Grand Avenue Las Vegas, NM 87701
San Miguel	Pecos Landfill Northwest ¼, Section 32, T16N, R12E	Closed	Village of Pecos PO Box 337 Pecos, NM 87552

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San Miguel	Tecolote Landfill .6 mi east of I-25 @ Tecolote exit	Closed	San Miguel County 500 W. National Avenue Las Vegas, NM 87701
San Miguel	Villanueva Landfill 1/5 mi northeast of Village of Villanueva	Closed	San Miguel County 500 W. National Avenue Las Vegas, NM 87701
Sandoval	Cuba Landfill 4 mi south of Cuba, west of U.S. 550	Closed	Village of Cuba PO Box 426 Cuba, NM 87013
Sandoval	San Ysidro Landfill 0.5 mi west of San Ysidro, north of US Hwy 550	Closed	Village of San Ysidro PO Box 190 San Ysidro, NM 87053
Sandoval	Rio Rancho Landfill 33rd Street and Northern Blvd., Rio Rancho	Open - TV	Waste Management of New Mexico, Inc. 222 South Mill Avenue, Ste 333 Tempe, AZ 85281
Sandoval	Sandoval County Landfill and Composting Facility 2700 iris Road, Rio Rancho	Open - TV	County of Sandoval 1500 Idalia Rod, Bldg. D Bernalillo, NM 87004
Santa Fe	Agua Fria Landfill 293 County Road 62, Santa Fe	Closed	Santa Fe County Solid Waste Division 2600 Galisteo Road PO Box 276 Santa Fe, NM 87504
Santa Fe	El Llano Landfill East of Hwy 291, Española	Closed	City of Española 405 N. Paseo de Oñate Española, NM 87532
Santa Fe	City of Santa Fe Landfill North ½ Section 22 & SE ¼ Section 15, Santa Fe	Closed	City of Santa Fe PO Box 909 Santa Fe, NM 87501
Santa Fe	Santa Fe Downs Landfill South of Old Santa Fe Downs racetrack	Closed	Santa Fe Downs, LLC 1287 Este Lane Santa Fe, NM 87501
Santa Fe	Caja del Rio Landfill 149 Wildlife Way, Santa Fe	Open – TV	Santa Fe Solid Waste Management Agency 149 Wildlife Way Santa Fe, NM 87502
Sierra	Sierra County Landfill NM Hwy 52, 6.5 mi northwest of Truth or Consequences	Closed	Sierra County 855 Van Patten Truth or Consequences, NM 87901
Sierra	Truth or Consequences Landfill 3 mi north of I-25 exit 83 on Hwy 181	Closed	Truth or Consequences 505 Sims Street Truth or Consequences, NM 87901

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Socorro	City of Socorro Landfill 2465 Hwy 1, Socorro	Closed	City of Socorro 111 School of Mines Socorro, NM 87801
Socorro	Fort Craig Landfill Section 1, T8S, R3@	Closed	NM Dept. of Transportation 2921 E. Pine Street Deming, NM 88030
Socorro	La Joya Landfill ½ mi east of La Joya	Closed	County of Socorro 198 Neel Avenue Socorro, NM 87801
Socorro	Magdalena C&D Landfill Spears Road, Magdalena	Never constructed	Village of Magdalena PO Box 145 Magdalena, NM 87825
Socorro	Magdalena Landfill NE ¼ Section 22, T2S, R4W	Closed	Village of Magdalena PO Box 145 Magdalena, NM 87825
Socorro	San Antonio Landfill 1 mi southwest of An Antonio	Closed	County of Socorro 198 Neel Avenue Socorro, NM 87801
Socorro	Veguita Landfill 1 mi south of Veguita	Closed	County of Socorro 198 Neel Avenue Socorro, NM 87801
Socorro	Socorro Landfill State Hwy 1, 3 mi south of B Street, Socorro	Open	City of Socorro 111 School of Mines Socorro, NM 87801
Socorro	White Sands Missile Range PHETS C&D Landfill 13 mi south of Stallion Range between Range Roads 7 & 13	Open	U.S. Army WSMR 100 Headquarters Avenue Attn: IMWE-WSM-PW White Sands Missile Range, NM 88002
Socorro	White Sands Missile Range Stallion Range Center Landfill Range Road 7 near Stallion Range Center	Open	U.S. Army WSMR 100 Headquarters Avenue Attn: IMWE-WSM-PW White Sands Missile Range, NM 88002
Taos	Arroyo Hondo Landfill Section 20, T27N, R12E	Closed	County of Taos 105 Albright Street, Suite P Taos, NM 87571
Taos	Cerro Landfill Section 27, T25N, R12E	Closed	County of Taos 105 Albright Street, Suite P Taos, NM 87571
Taos	Chamisal Landfill 2 mi northeast of Trampas west of State Road 76	Closed	County of Taos 105 Albright Street, Suite P Taos, NM 87571
Taos	Costilla Landfill Section 2, T31N, R12E	Closed	County of Taos 105 Albright Street, Suite P Taos, NM 87571

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Taos	Ojo Caliente Landfill T24N, R9E, Section 8	Closed	County of Taos 105 Albright Street, Suite P Taos, NM 87571
Taos	Taos Regional Landfill 24663 Hwy 64	Open	Town of Taos 400 Camino de las Placitas Taos, NM 87571
Torrance	Encino Landfill Section 33, T5N, R14E	Closed	Village of Encino PO Box 163 Encino, NM 88321
Torrance	Estancia Landfill Section 17, T6N, R9E	Closed	Town of Estancia PO Box 166 Estancia, NM 87016
Torrance	Mountainair Landfill Mile marker 202, U.S. Hwy 60, Mountainair	Closed	Town of Mountainair PO Box 115 Mountainair, NM 87036
Torrance	Willard Landfill Northeast of intersection of Jackson and 11th St., Willard	Closed	Village of Willard PO Box 204 Willard NM 87063
Torrance	Estancia Valley Regional Landfill Longhorn exit 7 miles east of Moriarty on Landfill Road	Open	Estancia Valley Solid Waste Authority 515 Allen Street PO Box 736 Estancia, NM 87016
Torrance	Keers Asbestos Landfill County Road B029, Mountainair	Open	Keers Industries, Inc. 5904 Florence Ave. NE Albuquerque, NM 87113
Union	Clayton Landfill 5 mi south of Clayton on Hwy 402	Closed	Town of Clayton 1 Chestnut Street Clayton, NM 88415
Valencia	Belen Landfill McCord Road – Las Piedras	Closed	City of Belen 100 S. Main Street Belen, NM 87002
Valencia	Los Lunas Landfill Hwy 6, 3 mi west of I-25, Los Lunas	Closed	Village of Los Lunas 660 Main Street NW Los Lunas, NM 87031
Valencia	Valencia County Landfill 3 mi south of Belen and 1200 ft west of I-25	Closed	County of Valencia PO Box 1119 444 Luna Avenue Los Lunas, NM 87031
Valencia	Valencia Regional Landfill and Recycling Facility Mystic Mountain Road, 14.5 mi west of I-25 on NM 6	Open – TV	Waste Management of New Mexico, Inc. 222 South Mill Avenue, Ste 333 Tempe, AZ 85281

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To: Boyce, Kenneth[boyce.kenneth@epa.gov]
From: Merta, Ed L.
Sent: Wed 5/31/2017 6:55:45 PM
Subject: RE: Landfills submittal

Thank you kind sir!

Two additional questions, regarding the 90 day stay, if I may. Apologies if this rehashes material from our phone call last week, just want to make sure I know what I'm doing!

1) My understanding is that prior to the stay, the deadline for EPA to approve our MSWL state plan (under 40 CFR 60.27) was four months after May 30, which would be around September 30. Should I assume that this date has now been pushed back 90 days, to around December 30? The reason I ask is that our recently adopted regulation on existing MSWLs calls for regulated facilities to begin complying with Subpart Cf once EPA approves our state plan, and so I'd like to be sure I understand the timeline for EPA approval.

2) Also, my understanding is that during the 90 day stay, EPA will issue a new proposed rule accepting comments on the aspects of Subparts Cf and XXX described in today's Federal Register notice. I assume that when the 90 day stay ends on August 29, Subparts Cf and XXX will still be in effect in their current form, and thus affected facilities will have to comply with them pending EPA's promulgation of a new final rule, which may not occur for a significant amount of time after August 29. Thus, it appears that once the 90 day stay expires, there will be a period, of unknown duration, in which existing and new MSWLs will have to comply with Subparts Cf (once EPA approves a state plan) or XXX, as applicable, rather than Subparts Cc or WWW. Is my understanding correct?

Any information appreciated, just want to make sure I can advise our folks here of what to expect in the coming months, in case they have questions from regulated sources.

Thanks very much!

-Ed

Ed Merta
Air Quality Regulation Development Coordinator
Air Quality Program
Environmental Health Department
City of Albuquerque
PO Box 1293
Albuquerque NM 87103
Phone: (505) 768-2660
emerta@cabq.gov

From: Boyce, Kenneth [mailto:boyce.kenneth@epa.gov]
Sent: Tuesday, May 30, 2017 12:53 PM
To: Merta, Ed L.
Subject: RE: Landfills submittal

Hi Ed,

Sorry about the confusion. Mr. Guy Donaldson has replaced Mark since his retirement. Have a good day. Stay safe.

Ken Boyce, Environmental Protection Specialist

PH: (214) 665-7259
FAX: (214) 665-7263

From: Merta, Ed L. [mailto:emerta@cabq.gov]
Sent: Tuesday, May 30, 2017 12:49 PM
To: Boyce, Kenneth <boyce.kenneth@epa.gov>
Subject: Landfills submittal

Hi Ken,

Quick question for you – when I sent you and others a heads up email last week about our submittal, I cc'd Mark Hansen but the email bounced back to him. For future reference, is someone else serving in his position now…?

Hope you had a great holiday, take care,

Ed Merta
Air Quality Regulation Development Coordinator
Air Quality Program
Environmental Health Department
City of Albuquerque
PO Box 1293
Albuquerque NM 87103
Phone: (505) 768-2660
emerta@cabq.gov

To: Boyce, Kenneth[boyce.kenneth@epa.gov]
From: Hollenberg, Cindy, NMENV
Sent: Wed 2/1/2017 8:31:20 PM
Subject: RE: MSWL - plan (including rule amendment)

Thanks Ken. That s exactly what I was hoping for!

Have a good day. Hope you re holding on okay amid all the uncertainty.
Cindy

From: Boyce, Kenneth [mailto:boyce.kenneth@epa.gov]
Sent: Wednesday, February 01, 2017 1:26 PM
To: Hollenberg, Cindy, NMENV <Cindy.Hollenberg@state.nm.us>
Cc: Walser, John <Walser.John@epa.gov>; Stanton, Marya <Stanton.Marya@epa.gov>
Subject: RE: MSWL - plan (including rule amendment)

Hello Cindy,

Hope you are having a good day. Thank you very much for your endeavors regarding the NMED s MSW Landfill state plan amendments and the opportunity to review it. I have no comment(s) due to the duplication of the recently revised Subpart Cf, emission guideline rule included into the state plan. I do not forsee any major comment(s) (if any) to be brought up during the public hearing process. Please contact me if you have any questions.

Thanks,

Ken Boyce, Environmental Protection Specialist

PH: (214) 665-7259
FAX: (214) 665-7263

From: Hollenberg, Cindy, NMENV [mailto:Cindy.Hollenberg@state.nm.us]
Sent: Tuesday, January 31, 2017 4:47 PM
To: Boyce, Kenneth <boyce.kenneth@epa.gov>
Cc: Singleton,Kerwin, NMENV <Kerwin.Singleton@state.nm.us>
Subject: MSWL - plan (including rule amendment)

Hello Ken,

Attached please find the proposed New Mexico Section 111(d) plan to fulfill the requirements of 40 CFR 60 Subpart Cf. This proposed plan is complete except for the hearing record. We have scheduled a hearing for April 28, 2017 to consider adopting this proposed plan and rule amendments. A copy of the public notice is also attached. This public notice will be published in the New Mexico Register and in the Albuquerque Journal on February 14, 2017 in both English and Spanish. EPA Region 6 will also receive an email notice on that date with links to the documents under consideration.

Please be advised that I have included 2 versions of the rule amendments (for Part 64), although they are substantively identical. One version amends the rule; the redline strikeout version is attached. The other version repeals and replaces the rule; only the replacement is included.

We would appreciate EPA comments by March 31, 2017. This would give us time to make changes as necessary before our technical testimony is due to the Environmental Improvement Board on April 7.

Thank you,
Cindy

To: 'Hollenberg, Cindy, NMENV'[Cindy.Hollenberg@state.nm.us]
Cc: Walser, John[Walser.John@epa.gov]; Stanton, MaryA[Stanton.Marya@epa.gov]
From: Boyce, Kenneth
Sent: Wed 2/1/2017 8:25:34 PM
Subject: RE: MSWL - plan (including rule amendment)

Hello Cindy,

Hope you are having a good day. Thank you very much for your endeavors regarding the NMED s MSW Landfill state plan amendments and the opportunity to review it. I have no comment(s) due to the duplication of the recently revised Subpart Cf, emission guideline rule included into the state plan. I do not forsee any major comment(s) (if any) to be brought up during the public hearing process. Please contact me if you have any questions.

Thanks,

Ken Boyce, Environmental Protection Specialist

PH: (214) 665-7259
FAX: (214) 665-7263

From: Hollenberg, Cindy, NMENV [mailto:Cindy.Hollenberg@state.nm.us]
Sent: Tuesday, January 31, 2017 4:47 PM
To: Boyce, Kenneth <boyce.kenneth@epa.gov>
Cc: Singleton,Kerwin, NMENV <Kerwin.Singleton@state.nm.us>
Subject: MSWL - plan (including rule amendment)

Hello Ken,

Attached please find the proposed New Mexico Section 111(d) plan to fulfill the requirements of 40 CFR 60 Subpart Cf. This proposed plan is complete except for the hearing record. We have scheduled a hearing for April 28, 2017 to consider adopting this proposed plan and rule amendments. A copy of the public notice is also attached. This public notice will be published in the New Mexico Register and in the Albuquerque Journal on February 14, 2017 in both English and Spanish. EPA Region 6 will also receive an email notice on that date with links to the documents under consideration.

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We would appreciate EPA comments by March 31, 2017. This would give us time to make changes as necessary before our technical testimony is due to the Environmental Improvement Board on April 7.

Thank you,
Cindy

To: Boyce, Kenneth[boyce.kenneth@epa.gov]
From: Stanton, MaryA
Sent: Thur 1/26/2017 4:54:29 PM
Subject: RE: Petition for Regulatory Change, Adopting a Landfills Plan and Amending 20.11.63, 20.11.64, and 20.11.71 NMAC

Thank you Ken. And yes, you are correct it is caught up in the transition stuff, but like everything we will continue to process things like we normally due until we can get stuff signed and out.

Mary A. Stanton, Chief
Ozone and Infrastructure Section (6MM-AB)
EPA Region 6
214-665-8377

From: Boyce, Kenneth
Sent: Thursday, January 26, 2017 10:29 AM
To: Stanton, Marya <Stanton.Marya@epa.gov>
Subject: RE: Petition for Regulatory Change, Adopting a Landfills Plan and Amending 20.11.63, 20.11.64, and 20.11.71 NMAC

Good morning Mary. Yes, I have seen the DRAFTS and both the NMED and AEHD have both IBR d the revised Federal Plan EG s under 40 CFR 60, Subpart Cf, Section 60.33f. Therefore, I have no comment(s). Also, I m confident that the State/City petitions will most likely have no major (if any) comments regarding the new EG rules. Mary, I think the MSW Landfills is also caught up the mix of the transition rule review process. My instinct is that this will not be a hot button item and the program will continue to carry on.

Ken Boyce, Environmental Protection Specialist

PH: (214) 665-7259
FAX: (214) 665-7263

From: Stanton, Marya
Sent: Tuesday, January 24, 2017 7:10 AM
To: Boyce, Kenneth <boyce.kenneth@epa.gov>
Subject: FW: Petition for Regulatory Change, Adopting a Landfills Plan and Amending 20.11.63, 20.11.64, and 20.11.71 NMAC

Hi Ken,

Please review. I believe you may have already seen the drafts.

Mary A. Stanton, Chief
Ozone and Infrastructure Section (6MM-AB)
EPA Region 6
214-665-8377

From: Donaldson, Guy
Sent: Tuesday, January 24, 2017 7:03 AM
To: Stanton, Marya <Stanton.Marya@epa.gov>
Subject: FW: Petition for Regulatory Change, Adopting a Landfills Plan and Amending 20.11.63, 20.11.64, and 20.11.71 NMAC

Please review and provide comments.

From: Albuquerque - Bernalillo County Air Quality Control Board [mailto:adaffern@cabq.gov]
Sent: Monday, January 23, 2017 5:03 PM
To: Donaldson, Guy <Donaldson.Guy@epa.gov>
Subject: Petition for Regulatory Change, Adopting a Landfills Plan and Amending 20.11.63, 20.11.64, and 20.11.71 NMAC

Petition to Adopt a State Plan for Control of Certain Emissions From Existing Municipal Solid Waste Landfills; and to Amend: 20.11.63 NMAC, New Source Performance Standards for Stationary Sources; 20.11.64 NMAC, Emission Standards for Hazardous Air Pollutants for Stationary Sources; and 20.11.71 NMAC, Municipal Solid Waste Landfills

Dear Stakeholder:

The City of Albuquerque Environmental Health Department filed the above petition on January 23, 2017. A copy of the petition with the public review drafts of the proposed amended regulations is available for download at:

https://www.dropbox.com/sh/avckg23h0v469xl/AAClopw8I-UdmxWDnKt-CZc0a?dl=0
The Environmental Health Department will request that the petition be an item on the agenda at the scheduled meeting of the Albuquerque - Bernalillo County Air Quality Control Board on February 8, 2017. Written comments regarding the proposed regulatory change may be submitted to:

Ed Merta
Air Quality Regulation Development Coordinator
City of Albuquerque
Environmental Health Department
Air Quality Program
P.O. Box 1293
Albuquerque, NM 87103
Phone: (505) 768-2660
Fax: (505) 768-2617
emerta@cabq.gov

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To: 'Merta, Ed L.'[emerta@cabq.gov]
Cc: Stanton, MaryA[Stanton.Marya@epa.gov]
From: Boyce, Kenneth
Sent: Thur 1/26/2017 4:43:45 PM
Subject: RE: Petition for Regulatory Change, Adopting a Landfills Plan and Amending 20.11.63, 20.11.64, and 20.11.71 NMAC

Good morning Ed,

I wish for you the same Well Wishes. Again, I would like to give my sincere appreciation for all your endeavors in this matter. I have no comment(s) regarding the updated AEHD MSW Landfill plan, due to the plans EG s being duplicated along with the Federal and State Plans. I wish for you success during the petition process. Have a good day and stay safe.

Thanks,

Ken Boyce, Environmental Protection Specialist

PH: (214) 665-7259
FAX: (214) 665-7263

From: Merta, Ed L. [mailto:emerta@cabq.gov]
Sent: Monday, January 23, 2017 5:09 PM
To: Boyce, Kenneth <boyce.kenneth@epa.gov>
Subject: FW: Petition for Regulatory Change, Adopting a Landfills Plan and Amending 20.11.63, 20.11.64, and 20.11.71 NMAC

Hi Ken,

Hope this finds you well and having a good New Year.

Per the message below, we have filed a rulemaking petition with our Air Quality Control Board regarding the emission guidelines and NSPS for municipal solid waste landfills. We aim for a hearing on April 12, which should give us time to meet the May 30 EPA deadline.

The message below contains a link to our draft state plan for landfills and our draft amendments to local regulations. If EPA has any comments on these we d appreciate receiving them by March 1, so that we will have time to draft a response for the hearing record and consider any amendments that might be necessary to propose as floor amendments at the hearing.

Thanks very much and take care,

-Ed

Ed Merta
Air Quality Regulation Development Coordinator
Air Quality Program
Environmental Health Department
City of Albuquerque
PO Box 1293
Albuquerque NM 87103
Phone: (505) 768-2660
emerta@cabq.gov

From: Albuquerque - Bernalillo County Air Quality Control Board [mailto:adaffern@cabq.gov]

Sent: Monday, January 23, 2017 4:03 PM
To: Merta, Ed L.
Subject: Petition for Regulatory Change, Adopting a Landfills Plan and Amending 20.11.63, 20.11.64, and 20.11.71 NMAC

Petition to Adopt a State Plan for Control of Certain Emissions From Existing Municipal Solid Waste Landfills; and to Amend: 20.11.63 NMAC, New Source Performance Standards for Stationary Sources; 20.11.64 NMAC, Emission Standards for Hazardous Air Pollutants for Stationary Sources; and 20.11.71 NMAC, Municipal Solid Waste Landfills

Dear Stakeholder:

The City of Albuquerque Environmental Health Department filed the above petition on January 23, 2017. A copy of the petition with the public review drafts of the proposed amended regulations is available for download at:

https://www.dropbox.com/sh/avckg23h0v469xl/AAClopw8I-UdmxWDnKt-CZc0a?dl=0
The Environmental Health Department will request that the petition be an item on the agenda at the scheduled meeting of the Albuquerque - Bernalillo County Air Quality Control Board on February 8, 2017. Written comments regarding the proposed regulatory change may be submitted to:

Ed Merta
Air Quality Regulation Development Coordinator
City of Albuquerque
Environmental Health Department
Air Quality Program
P.O. Box 1293
Albuquerque, NM 87103
Phone: (505) 768-2660
Fax: (505) 768-2617
emerta@cabq.gov

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To: Purifoy, Tiffany[Purifoy.Tiffany@epa.gov]
Cc: Stanton, MaryA[Stanton.Marya@epa.gov]
From: Boyce, Kenneth
Sent: Tue 4/10/2018 9:47:47 PM
Subject: Landfill Files for FOIA EPA-HQ-2018-005836 (EMAIL BATCH #1)

Notice of Rulemaking Hearing (AQCB 2017-1) to Consider Adopting a Landfills Plan and Amending 20.11.63, 20.11.64, and 20.11.71 NMAC
February Call Agenda
RE: February 129 Agenda Topics
RE: Question regarding compliance time and process for landfills
RE: Question regarding compliance time and process for landfills
Read: Question regarding compliance time and process for landfills
Read: RE: Question regarding compliance time and process for landfills
Read: Question regarding compliance time and process for landfills
Read: Question regarding compliance time and process for landfills
RE: Question regarding compliance time and process for landfills
RE: Question regarding compliance time and process for landfills
Read: Question regarding compliance time and process for landfills

Hello Ms. Purifoy,

Hope you are having a good day. As per our earlier phone conversion, the attached files (Batch #1) are pertaining to the R6 Landfill(s) plan issues for Region 6 from August 2016 to present. The files are broken down to 12 files at a time due the large data files. The files are identified by (**EMAIL BATCH #'s).** Also, I have attached the FOIA checklist and the fee calculation worksheets at the end of the files. Tiffany, thank you very much for taking your precious time to assist me in this matter. Please contact me if you have any questions/concerns. Stay safe out there!!

Sincerely

Kenneth (Ken) Boyce

Ozone and Infrastructure Section (6MM-MB)

EPA Region 6

214-665-7259

To: Gardella, Anthony[Gardella.Anthony@epa.gov]; Arias, Megan[arias.megan@epa.gov]; Ayres, Sara[Ayres.Sara@epa.gov]; Behan, Frank[Behan.Frank@epa.gov]; Bird, Patrick[Bird.Patrick@epa.gov]; Bloeth, Mark[Bloeth.Mark@epa.gov]; Cardile, Joseph[Cardile.Joseph@epa.gov]; Castro, Grecia[Castro.Grecia@epa.gov]; Spells, Charlene[Spells.Charlene@epa.gov]; Hall, Charles[hall.charles@epa.gov]; Razzazian, Christopher[Razzazian.Christopher@epa.gov]; Cobb, Brandon[cobb.brandon@epa.gov]; Cunningham, Roylene[Cunningham.Roylene@epa.gov]; Kaleri, Cynthia[kaleri.cynthia@epa.gov]; McNeal, Dave[Mcneal.Dave@epa.gov]; Cozzie, David[Cozzie.David@epa.gov]; Dressler, Jason[Dressler.Jason@epa.gov]; Dubose, Dick[DuBose.Dick@epa.gov]; Fallon, Gail[fallon.gail@epa.gov]; Frizzell, Gretchen[Frizzell.Gretchen@epa.gov]; Gross, Gary[Gross.Gary@epa.gov]; Faison, George[Faison.George@epa.gov]; Goff, Keith[Goff.Keith@epa.gov]; Fried, Gregory[Fried.Gregory@epa.gov]; Griffith, Carrie[griffith.carrie@epa.gov]; Hambrick, Amy[Hambrick.Amy@epa.gov]; Patel, Harish[Patel.Harish@epa.gov]; Hedgpeth, Zach[Hedgpeth.Zach@epa.gov]; Hullinger, Luke[Hullinger.Luke@epa.gov]; Jackson, Scott[Jackson.Scott@epa.gov]; Miller, Jesse[Miller.Jesse@epa.gov]; Pavitt, John[Pavitt.John@epa.gov]; Goff, Keith[Goff.Keith@epa.gov]; Morrison, Kendra[Morrison.Kendra@epa.gov]; Boyce, Kenneth[boyce.kenneth@epa.gov]; Villatora, Liliana[Villatora.Liliana@epa.gov]; Hanlon, Lisa[Hanlon.Lisa@epa.gov]; Lohrke, Gregory[lohrke.gregory@epa.gov]; Thomas, Marc[Thomas.Marc@epa.gov]; Mia, Marcia[Mia.Marcia@epa.gov]; Sieffert, Margaret[Sieffert.Margaret@epa.gov]; Maurin, Lawrence[Maurin.Lawrence@epa.gov]; McNeal, Dave[Mcneal.Dave@epa.gov]; Gordon, Michael[Gordon.Mike@epa.gov]; Thrift, Mike[thrift.mike@epa.gov]; Mitchell, Ken[Mitchell.Ken@epa.gov]; Modak, Nabanita[Modak.Nabanita@epa.gov]; Narvaez, Madonna[Narvaez.Madonna@epa.gov]; Nguyen, Thien Khoi[nguyen.thien@epa.gov]; Okubo, Noreen[Okubo.Noreen@epa.gov]; Owens, Katharine[Owens.Katharine@epa.gov]; Versace, Paul[Versace.Paul@epa.gov]; Pepple, Karl[Pepple.Karl@epa.gov]; Queiroz, Gustavo[queiroz.gustavo@epa.gov]; Trine, Rae[trine.rae@epa.gov]; Vetter, Rick[Vetter.Rick@epa.gov]; Ritz, Phillip[Ritz.Phillip@epa.gov]; Russo, Todd[Russo.Todd@epa.gov]; Saporita, Chris[Saporita.Chris@epa.gov]; Sheppard, Andrew[sheppard.andrew@epa.gov]; Sims, Mark[Sims.Mark@epa.gov]; Spagg, Beverly[Spagg.Beverly@epa.gov]; Spina, Providence[Spina.Providence@epa.gov]; Stamataky, Evans[Stamataky.Evans@epa.gov]; Dubey, Susmita[dubey.susmita@epa.gov]; Jones, Toni[Jones.Toni@epa.gov]; Wall, Steve[Wall.Steve@epa.gov]
From: Gordon, Michael
Sent: Tue 2/28/2017 6:55:51 PM
Subject: February Call Agenda
February 129 Call.docx

;;;
129ers,

Attached is the agenda for this afternoon's call. Talk to you all at 2:30 eastern time.

-Mike

Mike Gordon

Environmental Engineer
Office of Permits and State Programs

Air Protection Division
EPA Region III

1650 Arch Street

Philadelphia, PA 19103

(215)-814-2039

Gordon.Mike@epa.gov

129 Workgroup Call – 2/28/2017
2:30-4:00 Eastern Time
Call in #: (b) (6)

2:30 Roll Call

2:35 Rule Updates

CISWI (Nabanita) – Air Curtain Incinerator Update*

OSWI (Nabanita)

Large/Small MWCs (Charlene)

HMIWI (Amy)

SSI (Amy)

Landfills (Andrew Sheppard)

2:50 Delaware MSWL State Plan and Erie WWTP Stack Test Extension– Mike Gordon, R3

3:15 SSI Delegation of Authority MOAs and MSWL Compliance Issues – Ken Boyce, R6

3:30 Incinerating Contraband – Shaheerah Kelly, R9

3:50 Regional Report Outs

R10 (John Pavitt) - I have an update on an OSWI enforcement case. R10 air compliance has decided to send a NOV to Oxbow Landfill in Prudhoe Bay, AK, for violation of NSPS Subpart EEEE. I raised questions about this facility early in the process with the group in prior meetings. Those discussions helped R10 make a determination on applicability.

Violations relate to failure to submit a Waste Minimization Plan and a Siting Plan to R10 prior to construction. The facility installed 2 new incinerator units in spring or summer 2016 and has not submitted the required plans. At the time of my inspection in September 2016 the units were shut down. The facility has not announced if they will permanently shut down the incinerators or instead, start them up and get them into compliance. When issuing the NOV we can ask about their future plans. If any other Regions have had a similar case, I'd appreciate hearing from them.

*We have been receiving questions on the apparent conflict between the language in 60.2550 (directing states to address ACI located at commercial and industrial facilities in the state plan) and the language in 60.2555 (exempting ACI from the state plan). Upon further review of the regulations, we have determined that there are exceptions to the ACI exemption in the prefatory language of 60.2555 that resolves the apparent conflict. Specifically, the regulation provides "Air curtain incinerators are exempt from the requirements of this subpart except for the provisions of §§ 60.2805, 60.2860, and 60.2870." (emphasis added). During discussions we determined that we need to provide states with the option for ACI to address the confusion:

- A state should not submit a negative declaration if there are air curtain incinerators that meet the definition as specified in §60.2810 that are located at commercial or industrial facilities, even if there are no CISWI units in the state. The state may submit a state plan that only includes the ACI specific provisions in this case. If the state does not want to submit a state plan for ACI only, the CISWI federal plan will apply and the state can take delegation of the federal plan or EPA will enforce the federal plan applicable to ACI.

- If a state has CISWI units and ACIs, the state should submit a state plan that includes both the CISWI units and ACI.

- ACI are required to obtain a title V permit and the applicable CISWI requirements must be included in the facilities title V permit even if the state has not taken delegation of CISWI and the CISWI federal plan applies.

Upon further discussion with OGC, we do not think there is a conflict in the regulatory text. 60.2550 requires the state to address ACI in the state plan and the prefatory language to the list of exemptions in 60.2555 includes an exception to the exemption for three ACI related provisions. We understand that ACI do not meet all of the criteria in 60.2550(a), but they are included in (a)(1) as separate from CISWI units and ACI meets the definition of incineration units (see requirement in (a)(2)) as it applies to ACI in the context of (a)(1). Also, (a)(3) indicates that incineration units are subject unless exempt under 60.2555, and, as noted, ACI are not wholly exempt under that provision.

To: Boyce, Kenneth[boyce.kenneth@epa.gov]
From: Albuquerque-Bernalillo County Air Quality Control Board
Sent: Tue 2/28/2017 7:50:57 PM
Subject: Notice of Rulemaking Hearing (AQCB 2017-1) to Consider Adopting a Landfills Plan and Amending 20.11.63, 20.11.64, and 20.11.71 NMAC

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Albuquerque-Bernalillo County Air Quality Control Board

ALBUQUERQUE-BERNALILLO COUNTY AIR QUALITY CONTROL BOARD
NOTICE OF HEARING

TO CONSIDER ADOPTION OF PROPOSED STATE PLAN FOR CONTROL OF CERTAIN EMISSIONS FROM EXISTING MUNICIPAL SOLID WASTE LANDFILLS
AND TO AMEND
20.11.63 NMAC, NEW SOURCE PERFORMANCE STANDARDS FOR STATIONARY SOURCES;
20.11.64 NMAC, NATIONAL EMISSIONS STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR STATIONARY SOURCES; AND
20.11.71 NMAC, MUNICIPAL SOLID WASTE LANDFILLS

On Wednesday, April 12, 2017, at 5:30 PM, the Albuquerque-Bernalillo County Air Quality Control Board ("Air Board") will hold a public hearing in the Vincent E. Griego Chambers located in the basement level of the Albuquerque-Bernalillo County Government Center, One Civic Plaza NW, Albuquerque, NM 87102. The hearing will address a petition for regulatory change from the City of Albuquerque, Environmental Health Department ("EHD"), proposing to take certain actions in response to rules promulgated by the U.S. Environmental Protection Agency ("EPA") affecting municipal solid waste landfills ("MSW landfills") as described below. Following the hearing, the Air Board at its regular monthly meeting the same evening is expected to consider adopting the regulatory actions and related submittals to EPA proposed in the EHD petition.

The agenda for the April 12, 2017 regular monthly meeting of the Air Board will be viewable at least 72 hours in advance of the meeting at http://www.cabq.gov/airquality/air-quality-control-board/events/april-12-2017-air-quality-control-board-meeting .

On August 29, 2016, the EPA issued two final rules affecting emissions of methane from MSW landfills. The first of these rules issued updated emission guidelines for existing MSW landfills. This rule requires states to submit to EPA, by May 30, 2017, a plan under Section 111(d) of the Clean Air Act to implement the updated emission guidelines The second EPA rule issued standards of performance for newly constructed, modified, or reconstructed MSW landfills.

The City of Albuquerque Environmental Health Department (EHD), Air Quality Program, has petitioned the Air Board, proposing regulatory changes that would address the federal rules for MSW landfills in the following ways:
(1) EHD proposes to submit a state plan to EPA under Section 111(d) of the Clean Air Act, demonstrating compliance with requirements of the federal emission guidelines for existing MSW landfills, codified at 40 CFR Part 60, Subpart Cf.
(2) EHD proposes to amend 20.11.71 NMAC, Municipal Solid Waste Landfills, to make the requirements for existing MSW landfills in 40 CFR Subpart Cf enforceable as state law.
(3) EHD proposes to amend 20.11.63 NMAC, New Source Performance Standards for Stationary Sources, to incorporate by reference federal performance standards for new, modified, and reconstructed MSW landfills under Section 111 of the Clean Air Act, at 40 CFR Part 60, Subpart XXX. EHD's proposed amendments to this local regulation would also incorporate by reference Section 111 federal performance standards for other stationary sources of air pollution, in addition to MSW landfills, promulgated by EPA as of January 23, 2017.
(4) EHD proposes to amend 20.11.64 NMAC, Emission Standards for Hazardous Air Pollutants for Stationary Sources, in order to incorporate federal emission standards for hazardous air pollutants under Section 112 of the Clean Air Act. These amendments would not relate to landfills but would align additional air quality standards with federal requirements, in accordance with past practice of updating 20.11.63 and 20.11.64 NMAC in tandem to assure uniform regulatory treatment of local stationary sources.
The Public Review Draft of the state plan for landfills and amended 20.11.63, 20.11.64, and 20.11.71 NMAC may be reviewed during regular business hours at the Environmental Health Department, One Civic Plaza, NW, Suite 3023, Albuquerque, NM 87102. Copies of the Public Review Draft may be obtained by contacting Andrew Daffern, Air Quality Control Board Liaison, at (505) 768-2601 or adaffern@cabq.gov. The Public Review Drafts of these documents and EHD's petition for regulatory change, AQCB Petition No. 2017-1, can also be found on the web site of EHD, Air Quality Program, at: http://www.cabq.gov/airquality/air-quality-control-board/petitions.
The hearing on the proposed regulatory change will be conducted in accordance with NMSA 1978 § 74-2-6; City of Albuquerque Joint Air Quality Control Board Ordinance, ROA § 9-5-1-6, Adoption of Regulations, Notice and Hearing; Bernalillo County Ordinance, Section 30-35, Adoption of Regulations, Notice and Hearings; and 20.11.82 NMAC, Rulemaking Procedures-Air Quality Control Board.
All interested persons will be given a reasonable opportunity at the hearing to submit relevant evidence, data, views and arguments, orally or in writing, to introduce exhibits, and to examine witnesses. Interested persons may present technical or non-technical testimony.
Persons wishing to present technical testimony must file with the hearing clerk a written notice of intent (NOI) to do so by 5:00 p.m. on Tuesday, August 30, 2016. The contact information for the hearing clerk is: Andrew Daffern, Air Quality Control Board Liaison, Environmental Health Department, One Civic Plaza, NW, Suite 3023, Albuquerque, New Mexico 87102. Andrew Daffern may be reached by phone at (505) 768-2601 or by email at adaffern@cabq.gov.

As required by 20.11.82.20 NMAC, the NOI shall:
(1) identify the person for whom the witness(es) will testify;
(2) identify each technical witness that the person intends to present and state the qualifications of the witness, including a description of their education and work background;
(3) include a copy of the direct testimony of each technical witness and state the anticipated duration of the testimony of that witness;
(4) include the text of any recommended modifications to the proposed regulatory change;
(5) list and attach an original and 15 copies of all exhibits anticipated to be offered by that person at the hearing, including any proposed statement of reasons for adoption of rules; and
(6) be served on the petitioner, if the document is an NOI filed by any person other than the petitioner.
An NOI must also follow the filing and service requirements of 20.11.82.16 NMAC.
As provided by 20.11.82.22 NMAC, any member of the general public may present non-technical testimony at the hearing. No prior notification is required to present non-technical testimony. Any member of the public may also offer exhibits in connection with non-technical testimony, as long as the exhibit is not unduly repetitious of the testimony. A member of the general public who wishes to submit a non-technical written statement for the record in lieu of oral testimony shall file the written statement prior to the hearing, or submit it at the hearing. Written statements submitted prior to the hearing may be directed to the hearing clerk, Andrew Daffern, at the above contact information.
NOTICE TO PERSONS WITH DISABILITIES: If you have a disability and require special assistance to participate in this meeting, please contact the Albuquerque-Bernalillo County Air Quality Control Board Liaison as soon as possible before the meeting date at (505) 768-2601. Those in need of hearing assistance may call 711.
The City of Albuquerque does not discriminate on the bases of race, color, national origin, sex, age or disability. If you believe you have been discriminated against, you may submit a complaint at www.cabq.gov/humanrights/filing-a-complaint. You may also contact Gabe Campos at ODHR@cabq.gov or 505-768-4589.

Mailing address: P.O. Box 1293, Albuquerque, NM 87103

Physical address: 3rd Floor, Suite 3023 - One Civic Plaza NW, Albuquerque, NM 87102

(505) 768 - 2601 adaffern@cabq.gov (505) 768 - 2617 (Fax)

City of Albuquerque, One Civic Plaza NW, Albuquerque, NM 87102

SafeUnsubscribe™ boyce.kenneth@epa.gov

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To: Gordon, Michael[Gordon.Mike@epa.gov]
From: Boyce, Kenneth
Sent: Fri 2/24/2017 11:34:11 PM
Subject: RE: February 129 Agenda Topics

;;;;
Hello Mike, hope you had a good day. Please add SSI Delegation of Authority MOA's and MSW Landfills numerous compliance issues.

Thanks,

Ken Boyce, Environmental Protection Specialist

PH: (214) 665-7259
FAX: (214) 665-7263

From: Gordon, Michael
Sent: Friday, February 24, 2017 7:41 AM
To: Gardella, Anthony ; Arias, Megan ; Ayres, Sara ; Behan, Frank ; Bird, Patrick ; Bloeth, Mark ; Cardile, Joseph ; Castro, Grecia ; Spells, Charlene ; Hall, Charles ; Razzazian, Christopher ; Cobb, Brandon ; Cunningham, Roylene ; Kaleri, Cynthia ; McNeal, Dave ; Cozzie, David ; Dressler, Jason ; Dubose, Dick ; Fallon, Gail ; Frizzell, Gretchen ; Gross, Gary ; Faison, George ; Goff, Keith ; Fried, Gregory ; Griffith, Carrie ; Hambrick, Amy ; Patel, Harish ; Hedgpeth, Zach ; Hullinger, Luke ; Jackson, Scott ; Miller, Jesse ; Pavitt, John ; Goff, Keith ; Morrison, Kendra ; Boyce, Kenneth ; Villatora, Liliana ; Hanlon, Lisa ; Lohrke, Gregory ; Thomas, Marc ; Mia, Marcia ; Sieffert, Margaret ; Maurin, Lawrence ; McNeal, Dave ; Gordon, Michael ; Thrift, Mike ; Mitchell, Ken ; Modak, Nabanita ; Narvaez, Madonna ; Nguyen, Thien Khoi ; Okubo, Noreen ; Owens, Katharine ; Versace, Paul ; Pepple, Karl ; Queiroz, Gustavo ; Trine, Rae ; Vetter, Rick ; Ritz, Phillip ; Russo, Todd ; Saporita, Chris ; Sheppard, Andrew ; Sims, Mark ; Spagg, Beverly ; Spina, Providence ; Stamataky, Evans ; Dubey, Susmita ; Jones, Toni
Subject: February 129 Agenda Topics

129ers,

This month's 129 call will be on Tuesday, February 28 at 2:30 eastern time. Please send me any agenda topics you have by COB Monday.

Talk to you all next week,

Mike

Mike Gordon

Environmental Engineer
Office of Permits and State Programs

Air Protection Division

EPA Region III

1650 Arch Street

Philadelphia, PA 19103

(215)-814-2039

Gordon.Mike@epa.gov

To: Gordon, Michael[Gordon.Mike@epa.gov]; Boyce, Kenneth[boyce.kenneth@epa.gov]
From: Sheppard, Andrew
Sent: Wed 2/8/2017 6:30:32 PM
Subject: RE: Question regarding compliance time and process for landfills

;;;;
Mike,

Got the meeting invite, looking forward to the call in a few weeks!

Thanks,

Andy Sheppard

U.S. EPA, Sector Policies and Programs Division, OAQPS

Natural Resources Group

(919)541-4161

From: Gordon, Michael
Sent: Wednesday, February 08, 2017 1:18 PM
To: Boyce, Kenneth ; Sheppard, Andrew
Subject: RE: Question regarding compliance time and process for landfills

Hi Andy,

If you're up for it I think it would be very helpful to have landfills as a standing agenda topic on our monthly calls. You could report any updates on the rule to the regions and the regions in turn could update you on any issues. I think Amy Hambrick sent you an invite to the meeting today. If not let me know and I can forward it to you.

-Mike

Mike Gordon

Environmental Engineer
Office of Permits and State Programs

Air Protection Division
EPA Region III

1650 Arch Street

Philadelphia, PA 19103

(215)-814-2039

Gordon.Mike@epa.gov

From: Boyce, Kenneth
Sent: Wednesday, February 08, 2017 12:02 PM
To: Sheppard, Andrew <sheppard.andrew@epa.gov>
Cc: Gordon, Michael <Gordon.Mike@epa.gov>
Subject: RE: Question regarding compliance time and process for landfills

Good morning Andy,

Hope you are having a good day. Thank you so much for your prompt reply regarding the City of Albuquerque's landfill compliance and EG issue below. In regards to the 129 Workgroup call next month, I'm not really sure what date this month's call will be. Our "fearless leader," Mike Gordon provides the dates for the monthly call. Looking forward to having you join us with your expertise in the MSW Landfill world.

Ken Boyce, Environmental Protection Specialist

PH: (214) 665-7259
FAX: (214) 665-7263

From: Sheppard, Andrew
Sent: Wednesday, February 08, 2017 7:28 AM
To: Boyce, Kenneth <boyce.kenneth@epa.gov>
Subject: RE: Question regarding compliance time and process for landfills

Hey Ken,

I agree with his interpretation as well. I am still willing to join the 129 workgroup call to help out on landfills, do you know when the next call for that is?

Thanks,

Andy Sheppard

U.S. EPA, Sector Policies and Programs Division, OAQPS

Natural Resources Group

(919)541-4161

From: Boyce, Kenneth
Sent: Tuesday, February 07, 2017 5:32 PM
To: Sheppard, Andrew <sheppard.andrew@epa.gov>
Subject: FW: Question regarding compliance time and process for landfills

Hello Andy, hope you are having a good day. I received the below message from Mr. Merta, AEHD and wanted to pass it along to you for your review/comment. I informed Ed that I was in agreement with his interpretation. Please let me know if you disagree. Also, I'm curious if there are still plans to have a MSW Landfill Workgroup created so that we can have some continuity with Subpart Cf?

Thanks,

Ken Boyce, Environmental Protection Specialist

PH: (214) 665-7259
FAX: (214) 665-7263

From: Merta, Ed L. [mailto:emerta@cabq.gov]
Sent: Tuesday, February 07, 2017 4:12 PM
To: Boyce, Kenneth <boyce.kenneth@epa.gov>
Subject: Question regarding compliance time and process for landfills

Hello Ken,

Hope this finds you well over there. I'm writing to confirm that my understanding is correct in regard to interpretation of 40 CFR Part 60, Subpart Cf in a particular set of circumstances. Those circumstances relate to a landfill that currently has a gas collection and control system (GCCS) installed under 40 CFR Part 60, Subpart Cc.

We've been having some confusion here about how Subpart Cf applies when a facility already has an operating GCCS under the old emission guidelines, as opposed to not having a GCCS at all and then reaching the emission threshold necessary to install one under Subpart Cf (i.e. 34 Mg).

Below, I'm typing my understanding of the process a landfill with a pre-existing GCCS will have to go through to comply with the new emissions guidelines once EPA approves our state plan. Would you mind reading this over and making sure my understanding is correct, and then providing any necessary correction? Would greatly appreciate it!

My understanding of what a landfill with a preexisting GCCS will have to do is as follows.

1) Within 90 days after effective date of EPA approval of the state plan submittal from Albuquerque, the landfill must submit a design capacity report to the City of Albuquerque Environmental Health Department. 40 CFR 60.38f(a).

2) Also within 90 days of effective date of EPA state plan approval, the landfill must submit an NMOC emission rate report. 40 CFR 60.38f(c). The emission rate report must contain an estimate performed using the equations in 60.35f(a) or (b) as applicable.

3) 60.35f(b) does not apply to the landfill, because the landfill is not seeking to cap, remove, or decommission its GCCS. So the landfill will use the emission estimate formulas in 60.35f(a) for

its NMOC emission rate report.

4) 60.35f(a) requires the landfill to estimate its **UNCONTROLLED** emissions, whether using equation 1 or equation 2.

5) Assuming the landfill with a preexisting GCCS applies the Tier 1 through 4 methods described in 40 CFR 60.35f(a) and, afterwards, the landfill is still required to implement a GCCS that meets the requirements of Subpart Cf, the landfill will have 30 months to come into compliance. 40 CFR 60.32f. Alternately, the landfill could choose not to apply the Tier 1 through 4 methods and skip directly to the process below of implementing a compliant GCCS. Technically, the landfill will not be "installing" a new GCCS, since it already has one. Nevertheless, the landfill is subject to the 30 month timeline to implement, by appropriate changes to its existing GCCS, a GCCS compliant with Subpart Cf, as described below.

a. The first step in the 30 month process of coming into compliance will be submittal of a revised design plan. 40 CFR 38f(e).

i. The landfill must submit a revised design plan prior to any operation of its current GCCS in a way that is not consistent with the design plan that the landfill submitted previously under Subpart Cc. 40 CFR 38f(e)(2).

ii. Because the landfill has already submitted a previous design plan in compliance with 40 CFR Subpart Cc, the landfill in this example will follow the process for submittal of a revised design plan in 40 CFR 38f(e), rather than requirements in 40 CFR 38f(d) that apply only to submittal of an initial, entirely new design plan.

iii. A revised design plan must be reviewed by the regulatory agency according to criteria in 40 CFR 60f(d)(1) through (d)(3); the agency will approve, disapprove, or request additional information necessary for approval. 40 CFR 60f(d)(6).

b. In the remaining 30 months of the implementation timeline, the landfill will follow the "increments of progress" requirements, as applicable, that are specified in the proposed amended version of the local Albuquerque regulation for landfills, 20.11.71.14(B) NMAC.

i. The increments of progress set time limits for awarding of contracts, initiation of on-site construction and installation, completion of on-site construction and installation, and performance testing no later than 150 days after the 30 month time frame for compliance has passed.

ii. The landfill will implement the actions described in the increments of progress as necessary.

6) After the compliance schedule above has been completed, the landfill must follow all requirements in 40 CFR Part 60, Subpart Cf, regarding operational standards, monitoring, reporting, recordkeeping, and any other applicable requirements.

Ed Merta

Air Quality Regulation Development Coordinator

Air Quality Program

Environmental Health Department

City of Albuquerque

PO Box 1293

Albuquerque NM 87103

Phone: (505) 768-2660

emerta@cabq.gov

To: Boyce, Kenneth[boyce.kenneth@epa.gov]; Sheppard, Andrew[sheppard.andrew@epa.gov]
From: Gordon, Michael
Sent: Wed 2/8/2017 6:18:07 PM
Subject: RE: Question regarding compliance time and process for landfills

;;;;
Hi Andy,

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Mike Gordon

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Office of Permits and State Programs

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EPA Region III

1650 Arch Street

Philadelphia, PA 19103

(215)-814-2039

Gordon.Mike@epa.gov

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Sent: Wednesday, February 08, 2017 12:02 PM
To: Sheppard, Andrew
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Ken Boyce, Environmental Protection Specialist

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FAX: (214) 665-7263

From: Sheppard, Andrew
Sent: Wednesday, February 08, 2017 7:28 AM
To: Boyce, Kenneth <boyce.kenneth@epa.gov>
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Natural Resources Group

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Subject: Question regarding compliance time and process for landfills

Hello Ken,

Hope this finds you well over there. I'm writing to confirm that my understanding is correct in regard to interpretation of 40 CFR Part 60, Subpart Cf in a particular set of circumstances. Those circumstances relate to a landfill that currently has a gas collection and control system (GCCS) installed under 40 CFR Part 60, Subpart Cc.

We've been having some confusion here about how Subpart Cf applies when a facility already has an operating GCCS under the old emission guidelines, as opposed to not having a GCCS at all and then reaching the emission threshold necessary to install one under Subpart Cf (i.e. 34 Mg).

Below, I'm typing my understanding of the process a landfill with a pre-existing GCCS will have to go through to comply with the new emissions guidelines once EPA approves our state plan. Would you mind reading this over and making sure my understanding is correct, and then providing any necessary correction? Would greatly appreciate it!

My understanding of what a landfill with a preexisting GCCS will have to do is as follows.

1) Within 90 days after effective date of EPA approval of the state plan submittal from Albuquerque, the landfill must submit a design capacity report to the City of Albuquerque Environmental Health Department. 40 CFR 60.38f(a).

2) Also within 90 days of effective date of EPA state plan approval, the landfill must submit an NMOC emission rate report. 40 CFR 60.38f(c). The emission rate report must contain an estimate performed using the equations in 60.35f(a) or (b) as applicable.

3) 60.35f(b) does not apply to the landfill, because the landfill is not seeking to cap, remove, or decommission its GCCS. So the landfill will use the emission estimate formulas in 60.35f(a) for its NMOC emission rate report.

4) 60.35f(a) requires the landfill to estimate its **UNCONTROLLED** emissions, whether using equation 1 or equation 2.

5) Assuming the landfill with a preexisting GCCS applies the Tier 1 through 4 methods described in 40 CFR 60.35f(a) and, afterwards, the landfill is still required to implement a GCCS that meets the requirements of Subpart Cf, the landfill will have 30 months to come into compliance. 40 CFR 60.32f. Alternately, the landfill could choose not to apply the Tier 1 through 4 methods and skip directly to the process below of implementing a compliant GCCS. Technically, the landfill will not be "installing" a new GCCS, since it already has one. Nevertheless, the landfill is subject to the 30 month timeline to implement, by appropriate changes to its existing GCCS, a GCCS compliant with Subpart Cf, as described below.

a. The first step in the 30 month process of coming into compliance will be submittal of a revised design plan. 40 CFR 38f(e).

i. The landfill must submit a revised design plan prior to any operation of its current GCCS in a way that is not consistent with the design plan that the landfill submitted previously under

Subpart Cc. 40 CFR 38f(e)(2).

ii. Because the landfill has already submitted a previous design plan in compliance with 40 CFR Subpart Cc, the landfill in this example will follow the process for submittal of a revised design plan in 40 CFR 38f(e), rather than requirements in 40 CFR 38f(d) that apply only to submittal of an initial, entirely new design plan.

iii. A revised design plan must be reviewed by the regulatory agency according to criteria in 40 CFR 60f(d)(1) through (d)(3); the agency will approve, disapprove, or request additional information necessary for approval. 40 CFR 60f(d)(6).

b. In the remaining 30 months of the implementation timeline, the landfill will follow the "increments of progress" requirements, as applicable, that are specified in the proposed amended version of the local Albuquerque regulation for landfills, 20.11.71.14(B) NMAC.

i. The increments of progress set time limits for awarding of contracts, initiation of on-site construction and installation, completion of on-site construction and installation, and performance testing no later than 150 days after the 30 month time frame for compliance has passed.

ii. The landfill will implement the actions described in the increments of progress as necessary.

6) After the compliance schedule above has been completed, the landfill must follow all requirements in 40 CFR Part 60, Subpart Cf, regarding operational standards, monitoring, reporting, recordkeeping, and any other applicable requirements.

Ed Merta

Air Quality Regulation Development Coordinator

Air Quality Program

Environmental Health Department

City of Albuquerque

PO Box 1293

Albuquerque NM 87103

Phone: (505) 768-2660

emerta@cabq.gov

To: 'Merta, Ed L.'[emerta@cabq.gov]
Cc: Stanton, MaryA[Stanton.Marya@epa.gov]; Sheppard, Andrew[sheppard.andrew@epa.gov]
From: Boyce, Kenneth
Sent: Wed 2/8/2017 4:40:10 PM
Subject: RE: Question regarding compliance time and process for landfills

;;;;
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Good morning Ed,

Hope you are having a good day. Again, I want to thank you very much for your tireless efforts in completing Albuquerque's landfill plan. After collaborating with Mr. Andrew (Andy) Sheppard, EPA HQ, OAQPS, we are in agreement with your interpretation of the Subpart Cf compliance time and process for landfills issue below.

Ken Boyce, Environmental Protection Specialist

PH: (214) 665-7259
FAX: (214) 665-7263

From: Merta, Ed L. [mailto:emerta@cabq.gov]
Sent: Tuesday, February 07, 2017 4:12 PM
To: Boyce, Kenneth
Subject: Question regarding compliance time and process for landfills

Hello Ken,

Hope this finds you well over there. I'm writing to confirm that my understanding is correct in regard to interpretation of 40 CFR Part 60, Subpart Cf in a particular set of circumstances. Those circumstances relate to a landfill that currently has a gas collection and control system (GCCS) installed under 40 CFR Part 60, Subpart Cc.

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NMOC emission rate report. 40 CFR 60.38f(c). The emission rate report must contain an estimate performed using the equations in 60.35f(a) or (b) as applicable.

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Ed Merta

Air Quality Regulation Development Coordinator

Air Quality Program

Environmental Health Department

City of Albuquerque

PO Box 1293

Albuquerque NM 87103

Phone: (505) 768-2660

emerta@cabq.gov

To: Boyce, Kenneth[boyce.kenneth@epa.gov]
From: Sheppard, Andrew
Sent: Wed 2/8/2017 1:27:58 PM
Subject: RE: Question regarding compliance time and process for landfills

;;;;
Hey Ken,

I agree with his interpretation as well. I am still willing to join the 129 workgroup call to help out on landfills, do you know when the next call for that is?

Thanks,

Andy Sheppard

U.S. EPA, Sector Policies and Programs Division, OAQPS

Natural Resources Group

(919)541-4161

From: Boyce, Kenneth
Sent: Tuesday, February 07, 2017 5:32 PM
To: Sheppard, Andrew
Subject: FW: Question regarding compliance time and process for landfills

Hello Andy, hope you are having a good day. I received the below message from Mr. Merta, AEHD and wanted to pass it along to you for your review/comment. I informed Ed that I was in agreement with his interpretation. Please let me know if you disagree. Also, I'm curious if there are still plans to have a MSW Landfill Workgroup created so that we can have some continuity with Subpart Cf?

Thanks,

Ken Boyce, Environmental Protection Specialist

PH: (214) 665-7259
FAX: (214) 665-7263

From: Merta, Ed L. [mailto:emerta@cabq.gov]
Sent: Tuesday, February 07, 2017 4:12 PM
To: Boyce, Kenneth <boyce.kenneth@epa.gov>
Subject: Question regarding compliance time and process for landfills

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regard to interpretation of 40 CFR Part 60, Subpart Cf in a particular set of circumstances. Those circumstances relate to a landfill that currently has a gas collection and control system (GCCS) installed under 40 CFR Part 60, Subpart Cc.

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Ed Merta

Air Quality Regulation Development Coordinator

Air Quality Program

Environmental Health Department

City of Albuquerque

PO Box 1293

Albuquerque NM 87103

Phone: (505) 768-2660

emerta@cabq.gov

To: Hollenberg, Cindy, NMENV[Cindy.Hollenberg@state.nm.us]
Cc: Stanton, Marya[Stanton.Marya@epa.gov]
From: Boyce, Kenneth
Sent: Tue 11/22/2016 9:40:46 PM
Subject: RE: DRAFT State Plan for MSWLs - 40 CFR 60 Subpart Cf

Hello Cindy,

Hope you are having a good day. We here at EPA thank you very much for sending the DRAFT SIP for MSW Landfills for our review. And we like to convey our sincere appreciation in your endeavors for this SIP action. We will review the SIP and immediately forward to you our comments upon completion. Have a happy holiday and stay safe.

Ken Boyce, Environmental Protection Specialist

PH: (214) 665-7259
FAX: (214) 665-7263

From: Hollenberg, Cindy, NMENV [mailto:Cindy.Hollenberg@state.nm.us]
Sent: Tuesday, November 22, 2016 2:28 PM
To: Boyce, Kenneth <boyce.kenneth@epa.gov>
Cc: Bates, Rita, NMENV <Rita.Bates@state.nm.us>; Singleton,Kerwin, NMENV <Kerwin.Singleton@state.nm.us>; Katz, Lara, NMENV <Lara.Katz@state.nm.us>; Samaniego, Robert, NMENV <robert.samaniego@state.nm.us>; Munoz, Carina, NMENV <Carina.Munoz@state.nm.us>; Schuman, George, NMENV <george.schuman@state.nm.us>
Subject: DRAFT State Plan for MSWLs - 40 CFR 60 Subpart Cf

Hi Ken,

Attached please find all of the draft documents we currently intend to submit, once finalized and adopted, as our State Plan for Subpart Cf. Our current intent is to submit a petition for hearing no later than December 23rd, so we would appreciate any comments you have by December 21, 2016. We will continue to fill in the gaps on the two inventories before submitting the proposed plan to you in a couple of months as part of our formal comment period.

We look forward to hearing whether these documents will sufficiently meet the requirements as set forth in the rule and the guidance.

Thank you,

Cindy

To: Malcolm Zachariah[Malcolm.Zachariah@deq.ok.gov]
Cc: Melanie Foster[Melanie.foster@deq.ok.gov]; Stanton, Marya[Stanton.Marya@epa.gov]; Paige, Carrie[Paige.Carrie@epa.gov]
From: Boyce, Kenneth
Sent: Thur 7/20/2017 3:19:04 PM
Subject: RE: MSW Landfill 111(d) plan extension details
TX 4-21-2017 Request for Extension for MSW Landfills Subpart Cf.pdf

Hello Malcolm,

Hope you are having a good day. The EPA recently announced convening a proceeding for reconsideration of certain requirements of Subpart Cf and stayed the effective date until August 29, 2017, pending the reconsideration. 82 Fed. Reg. 24878 (May 31, 2017). As a result of the aforementioned stay, a state plan submittal is not required at this time. The stay will allow the EPA to reconsider certain aspects of the emission guidelines for existing MSW landfills and prepare a notice of proposed rulemaking that would provide an opportunity for public comment related to the topics under reconsideration.

The attached document is the State of Texas' request for an extension we received in April, 2017. Hopefully, this will help with your extension request letter. We will follow up with your office prior to the expiration of the stay to discuss any changes that may affect the underlying basis for your extension request and whether you desire to modify or supplement your request.

Ken Boyce, Environmental Protection Specialist

PH: (214) 665-7259
FAX: (214) 665-7263

From: Malcolm Zachariah [mailto:Malcolm.Zachariah@deq.ok.gov]
Sent: Monday, July 17, 2017 2:04 PM
To: Boyce, Kenneth <boyce.kenneth@epa.gov>
Cc: Melanie Foster <Melanie.foster@deq.ok.gov>
Subject: MSW Landfill 111(d) plan extension details

Dear Mr. Boyce,

I have been working on rulemaking and planning regarding MSW landfills, including the 111(d) state plan to implement emission guidelines in Subpart Cf of 40 CFR Part 60.

We will ask for an extension for our state plan, and I have some questions about that:

What are the necessary parts of an extension request?

Do we need to include specific references to current regulations?

Do you have an example of an extension request letter?

Thank you for your help.

Sincerely,

Malcolm Zachariah

Environmental Programs Specialist

Air Quality Rules & Planning

Oklahoma Department of Environmental Quality

405-702-4170

To: Payne, James[payne.james@epa.gov]
Cc: Stanton, Marya[Stanton.Marya@epa.gov]
From: Boyce, Kenneth
Sent: Wed 6/7/2017 9:22:11 PM
Subject: Concurrence Email: CAA Section 111(d) Plan for MSW Landfills - TCEQ's Request for Extension of Plan Submittal Date
TCEQ's Extension Request - Subpart Cf - Draft Response - June 1 2017.docx

Hello Jim,

Hope you are having a good day. Please send me back a reply "concur" message to the attached reply letter or let me know of any comments/changes so that I may include them for Wren's review/comment next. There's a possibility for a minor change which will be discussed during the meeting tomorrow. Please contact me if you have any questions.

Thanks,

Ken Boyce, Environmental Protection Specialist
Air Planning Section (6MM-AB)
Multimedia, Planning & Permitting Division
U.S. EPA, Region 6
1445 Ross Ave, Suite 1200
Dallas, TX 75202-2733
PH: (214) 665-7259
FAX: (214) 665-7263

From: Stenger, Wren
Location: 7th Flr., Little Rock Conf. Rm.
Importance: Normal
Subject: Fw: R6-17-000-8205 Hyde - TCEQ request extension for MSWLs
Start Date/Time: Thur 6/8/2017 7:15:00 PM
End Date/Time: Thur 6/8/2017 7:45:00 PM
R6-17-000-8205 Hyde - TCEQ request extension for MSWLs.pdf
RA Briefing Sheet-MSWLs.docx
TCEQ's Extension Request - Subpart Cf - Draft Response - June 1 2017.docx

;;
I don't know what the response means by we will continue to consider your extension request during the stay???

From: McGee, Tomika
Sent: Wednesday, June 7, 2017 3:18 PM
To: Coleman, Sam; Stenger, Wren; Price, Lisa; Donaldson, Guy; Boyce, Kenneth; Stanton, Marya
Subject: R6-17-000-8205 Hyde - TCEQ request extension for MSWLs
When: Thursday, June 8, 2017 2:15 PM-2:45 PM.
Where: 7th Flr., Little Rock Conf. Rm.

To: Stanton, Marya[Stanton.Marya@epa.gov]
From: Olson, Janice
Sent: Thur 6/1/2017 6:27:42 PM
Subject: FW: Emailing: 17.05-30-jo - TCEQ Landfill SIP Extension Reply Letter.docx
TCEQ's Extension Request - Subpart Cf - Draft Response.docx

This was the letter Ken sent me earlier this morning. All I did to the one on the H-Drive was correct the spacing on the first paragraph.

Janice
Janice Olson
Administrative Assistant &
Communications Specialist
Cube 11.171 ~ Ext.: 2791 ~ R6-6MM-A

Someday is just another word for never. Live your someday today.

Consider the environment before you print any email.
This e-mail may contain material that is confidential, privileged, and/or attorney work product and is for the sole use of the intended recipient. Any review, reliance, or distribution by others or forwarding without express permission is strictly prohibited If you are not the intended recipient, please contact the sender and delete all copies.

-----Original Message-----
From: Boyce, Kenneth
Sent: Thursday, June 01, 2017 9:19 AM
To: Olson, Janice <Olson.Janice@epa.gov>
Cc: Stanton, Marya <Stanton.Marya@epa.gov>
Subject: FW: Emailing: 17.05-30-jo - TCEQ Landfill SIP Extension Reply Letter.docx

Good morning Jan,

Hope you are having a good day. Rick Bartley informed on late yesterday that he could not access the H: drive, so he made corrections/comments on the attached letter to be used as the most current "DRAFT" letter to be used for the control's senior staff review/concurrence processing. Also, please except my apology for getting the routing slip wrong. Please add Richard Bartley and Suzanne Smith between Mary and Guy for concurrence. As always, your assistance in this matter is greatly appreciated.

Ken Boyce, Environmental Protection Specialist

PH: (214) 665-7259
FAX: (214) 665-7263

-----Original Message-----
From: Bartley, Richard
Sent: Wednesday, May 31, 2017 5:42 PM
To: Boyce, Kenneth <boyce.kenneth@epa.gov>
Cc: Stanton, Marya <Stanton.Marya@epa.gov>
Subject: RE: Emailing: 17.05-30-jo - TCEQ Landfill SIP Extension Reply Letter.docx

Hi Ken -

Attached is a revised draft of the subject letter. After you and Mary have had a chance to review, let's discuss.

Thanks,

Rick

-----Original Message-----
From: Boyce, Kenneth
Sent: Wednesday, May 31, 2017 4:56 PM
To: Bartley, Richard <Bartley.Richard@epa.gov>
Subject: Emailing: 17.05-30-jo - TCEQ Landfill SIP Extension Reply Letter.docx

Hi Rick,

As per your request, the file above is the most recent saved into the H: drive, under 6MM-AB staff correspondence. Contact me if you have any questions.

Your message is ready to be sent with the following file or link attachments:

17.05-30-jo - TCEQ Landfill SIP Extension Reply Letter.docx

Note: To protect against computer viruses, e-mail programs may prevent sending or receiving certain types of file attachments. Check your e-mail security settings to determine how attachments are handled.

To: Olson, Janice[Olson.Janice@epa.gov]
Cc: Stanton, Marya[Stanton.Marya@epa.gov]
From: Boyce, Kenneth
Sent: Thur 6/1/2017 2:19:28 PM
Subject: FW: Emailing: 17.05-30-jo - TCEQ Landfill SIP Extension Reply Letter.docx
TCEQ's Extension Request - Subpart Cf - Draft Response.docx

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Ken Boyce, Environmental Protection Specialist

PH: (214) 665-7259
FAX: (214) 665-7263

-----Original Message-----
From: Bartley, Richard
Sent: Wednesday, May 31, 2017 5:42 PM
To: Boyce, Kenneth <boyce.kenneth@epa.gov>
Cc: Stanton, Marya <Stanton.Marya@epa.gov>
Subject: RE: Emailing: 17.05-30-jo - TCEQ Landfill SIP Extension Reply Letter.docx

Hi Ken -

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Rick

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From: Boyce, Kenneth
Sent: Wednesday, May 31, 2017 4:56 PM
To: Bartley, Richard <Bartley.Richard@epa.gov>
Subject: Emailing: 17.05-30-jo - TCEQ Landfill SIP Extension Reply Letter.docx

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17.05-30-jo - TCEQ Landfill SIP Extension Reply Letter.docx

Note: To protect against computer viruses, e-mail programs may prevent sending or receiving certain types of file attachments. Check your e-mail security settings to determine how attachments are handled.

To: Paige, Carrie[Paige.Carrie@epa.gov]
Cc: Young, Carl[young.carl@epa.gov]; Walser, John[Walser.John@epa.gov]; Riley, Jeffrey[Riley.Jeffrey@epa.gov]; Huser, Jennifer[Huser.Jennifer@epa.gov]; Stanton, Marya[Stanton.Marya@epa.gov]
From: Boyce, Kenneth
Sent: Wed 5/24/2017 8:40:25 PM
Subject: FW: EPA Stays Landfill Methane Rules Press Release

Hi Carrie,

This is what I sent out to my contacts earlier.

Ken Boyce, Environmental Protection Specialist

PH: (214) 665-7259
FAX: (214) 665-7263

From: Boyce, Kenneth
Sent: Wednesday, May 24, 2017 2:28 PM
To: 'bryan.johnston@la.gov' <bryan.johnston@la.gov>; 'Cheryl.Bradley@deq.ok.gov' <Cheryl.Bradley@deq.ok.gov>; 'Gail.Cooke@state.nm.us' <Gail.Cooke@state.nm.us>; 'Heather.Lerch@deq.ok.gov' <Heather.Lerch@deq.ok.gov>; Kati Wooten <kati.wooten@tceq.texas.gov>; 'mac@adeq.state.ar.us' <mac@adeq.state.ar.us>; Melanie Foster (melanie.foster@deq.ok.gov) <melanie.foster@deq.ok.gov>; 'Michael.Vince@LA.GOV' <Michael.Vince@LA.GOV>; 'michael.wilhoit@tceq.texas.gov' <michael.wilhoit@tceq.texas.gov>; 'Steve.Dubyk@state.nm.us' <Steve.Dubyk@state.nm.us>; 'Trais.Kliphuis@state.nm.us' <Trais.Kliphuis@state.nm.us>; 'vivian.aucoin@la.gov' <vivian.aucoin@la.gov>; Ed L. Merta (emerta@cabq.gov) <emerta@cabq.gov>
Cc: Stanton, Marya (Stanton.Marya@epa.gov) <Stanton.Marya@epa.gov>
Subject: EPA Stays Landfill Methane Rules Press Release

Hello,

The below press release is a 90-day administrative stay for MSW Landfills. States will have 90-days from the date of publication of the FRN that stays the EGs for the landfill NSPS, subpart Cf to submit their requests for extension of time to submit their 111(d) plans. So, the states don't have to do anything now. If you have any questions, please let me know.

FOR IMMEDIATE RELEASE
May 23, 2017

EPA Stays Landfill Methane Rules

WASHINGTON – Today, the U.S. Environmental Protection Agency (EPA) announced a 90-day administrative stay for the August 2016 New Source Performance Standards and Emissions Guidelines for municipal solid waste landfills. In a May 5th letter, EPA notified industry petitioners that the agency was granting their reconsideration request. This stay will allow EPA to reconsider certain aspects of the new source standards and emission guidelines for existing landfills. Consistent with President Trump's Energy Independence Executive Order Energy Independence Executive Order, EPA will continue to review these actions to ensure that they protect the environment and enable a growing economy.

"EPA is continuing to ensure that the public has the opportunity to comment on agency actions," **said Administrator Scott Pruitt.** "Reconsidering portions of the landfill rules will give stakeholders the opportunity to review these requirements, assess economic impacts and provide feedback to the agency through the reconsideration process."

In August 2016, EPA issued updated guidelines for existing municipal solid waste landfills and standards for newly built, modified or reconstructed landfills. Municipal solid waste landfills receive non-hazardous waste from homes, businesses and institutions. The updated rules require landfills to install and operate landfill gas collection systems, monitor emissions, as well as other provisions. EPA is reconsidering certain aspects of these standards, including the surface emissions monitoring option known as tier 4. To allow time for EPA to review these aspects, which are central to the outcome of the rule, both rules are stayed. Sources do not need to comply with any of the requirements while the 90-day stay is in effect. EPA estimates that implementing these rules would cost businesses more than $100 million per year to install and operate gas collection and control systems.

As part of the reconsideration process, EPA expects to prepare a proposed rule, which will allow for public comment. Additional information on the stay and reconsideration: https://www.epa.gov/stationary-sources-air-pollution/municipal-solid-waste-landfills-new-source-performance-standards.

Ken Boyce, Environmental Protection Specialist
Air Planning Section (6MM-AB)
Multimedia, Planning & Permitting Division

U.S. EPA, Region 6
1445 Ross Ave, Suite 1200
Dallas, TX 75202-2733
PH: (214) 665-7259
FAX: (214) 665-7263

To: bryan.johnston@la.gov[bryan.johnston@la.gov]; Cheryl.Bradley@deq.ok.gov[Cheryl.Bradley@deq.ok.gov]; Gail.Cooke@state.nm.us[Gail.Cooke@state.nm.us]; Heather.Lerch@deq.ok.gov[Heather.Lerch@deq.ok.gov]; Kati.Wooten@tceq.texas.gov[Kati.Wooten@tceq.texas.gov]; mac@adeq.state.ar.us[mac@adeq.state.ar.us]; Melanie Foster[Melanie.foster@deq.ok.gov]; Michael.Vince@LA.GOV[Michael.Vince@LA.GOV]; michael.wilhoit@tceq.texas.gov[michael.wilhoit@tceq.texas.gov]; Steve.Dubyk@state.nm.us[Steve.Dubyk@state.nm.us]; trais.kliphuis@state.nm.us[trais.kliphuis@state.nm.us]; vivian.aucoin@la.gov[vivian.aucoin@la.gov]; Ed L. Merta (emerta@cabq.gov)[emerta@cabq.gov]
Cc: Stanton, Marya[Stanton.Marya@epa.gov]
From: Boyce, Kenneth
Sent: Wed 5/24/2017 7:28:15 PM
Subject: EPA Stays Landfill Methane Rules Press Release

Hello,

The below press release is a 90-day administrative stay for MSW Landfills. States will have 90-days from the date of publication of the FRN that stays the EGs for the landfill NSPS, subpart Cf to submit their requests for extension of time to submit their 111(d) plans. So, the states don't have to do anything now. If you have any questions, please let me know.

FOR IMMEDIATE RELEASE
May 23, 2017

EPA Stays Landfill Methane Rules

WASHINGTON – Today, the U.S. Environmental Protection Agency (EPA) announced a 90-day administrative stay for the August 2016 New Source Performance Standards and Emissions Guidelines for municipal solid waste landfills. In a May 5th letter, EPA notified industry petitioners that the agency was granting their reconsideration request. This stay will allow EPA to reconsider certain aspects of the new source standards and emission guidelines for existing landfills. Consistent with President Trump's Energy Independence Executive Order Energy Independence Executive Order, EPA will continue to review these actions to ensure that they protect the environment and enable a growing economy.

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Ken Boyce, Environmental Protection Specialist
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PH: (214) 665-7259
FAX: (214) 665-7263

To: Stanton, Marya[Stanton.Marya@epa.gov]
From: Boyce, Kenneth
Sent: Tue 5/23/2017 7:29:26 PM
Subject: FW: Follow ups from today's call
129
signed_-_letter_-_municipal_solid_waste_landfills.pdf

Hello Mary. Finally, we have the May 5th letter signed by the Administrator.

Ken Boyce, Environmental Protection Specialist

PH: (214) 665-7259
FAX: (214) 665-7263

From: Gordon, Michael
Sent: Tuesday, May 23, 2017 2:14 PM
To: Gardella, Anthony <Gardella.Anthony@epa.gov>; Arias, Megan <arias.megan@epa.gov>; Ayres, Sara <Ayres.Sara@epa.gov>; Behan, Frank <Behan.Frank@epa.gov>; Bird, Patrick <Bird.Patrick@epa.gov>; Bloeth, Mark <Bloeth.Mark@epa.gov>; Cardile, Joseph <Cardile.Joseph@epa.gov>; Castro, Grecia <Castro.Grecia@epa.gov>; Spells, Charlene <Spells.Charlene@epa.gov>; Hall, Charles <hall.charles@epa.gov>; Razzazian, Christopher <Razzazian.Christopher@epa.gov>; Cobb, Brandon <cobb.brandon@epa.gov>; Cunningham, Roylene <Cunningham.Roylene@epa.gov>; Kaleri, Cynthia <kaleri.cynthia@epa.gov>; McNeal, Dave <Mcneal.Dave@epa.gov>; Cozzie, David <Cozzie.David@epa.gov>; Dressler, Jason <Dressler.Jason@epa.gov>; Dubose, Dick <DuBose.Dick@epa.gov>; Fallon, Gail <fallon.gail@epa.gov>; Frizzell, Gretchen <Frizzell.Gretchen@epa.gov>; Faison, George <Faison.George@epa.gov>; Goff, Keith <Goff.Keith@epa.gov>; Fried, Gregory <Fried.Gregory@epa.gov>; Griffith, Carrie <griffith.carrie@epa.gov>; Hambrick, Amy <Hambrick.Amy@epa.gov>; Patel, Harish <Patel.Harish@epa.gov>; Hedgpeth, Zach <Hedgpeth.Zach@epa.gov>; Hullinger, Luke <Hullinger.Luke@epa.gov>; Jackson, Scott <Jackson.Scott@epa.gov>; Miller, Jesse <Miller.Jesse@epa.gov>; Pavitt, John <Pavitt.John@epa.gov>; Goff, Keith <Goff.Keith@epa.gov>; Morrison, Kendra <Morrison.Kendra@epa.gov>; Boyce, Kenneth <boyce.kenneth@epa.gov>; Villatora, Liliana <Villatora.Liliana@epa.gov>; Hanlon, Lisa <Hanlon.Lisa@epa.gov>; Lohrke, Gregory <lohrke.gregory@epa.gov>; Thomas, Marc <Thomas.Marc@epa.gov>; Mia, Marcia <Mia.Marcia@epa.gov>; Sieffert, Margaret <Sieffert.Margaret@epa.gov>; Maurin, Lawrence <Maurin.Lawrence@epa.gov>; McNeal, Dave <Mcneal.Dave@epa.gov>; Gordon, Michael <Gordon.Mike@epa.gov>; Thrift, Mike <thrift.mike@epa.gov>; Mitchell, Ken <Mitchell.Ken@epa.gov>; Modak, Nabanita <Modak.Nabanita@epa.gov>; Narvaez, Madonna <Narvaez.Madonna@epa.gov>; Nguyen, Thien Khoi <nguyen.thien@epa.gov>; Okubo, Noreen <Okubo.Noreen@epa.gov>; Owens, Katharine <Owens.Katharine@epa.gov>; Versace, Paul <Versace.Paul@epa.gov>; Pepple, Karl <Pepple.Karl@epa.gov>; Queiroz, Gustavo <queiroz.gustavo@epa.gov>; Trine, Rae <trine.rae@epa.gov>; Vetter, Rick

<Vetter.Rick@epa.gov>; Ritz, Phillip <Ritz.Phillip@epa.gov>; Russo, Todd <Russo.Todd@epa.gov>; Saporita, Chris <Saporita.Chris@epa.gov>; Sheppard, Andrew <sheppard.andrew@epa.gov>; Sims, Mark <Sims.Mark@epa.gov>; Spagg, Beverly <Spagg.Beverly@epa.gov>; Spina, Providence <Spina.Providence@epa.gov>; Stamataky, Evans <Stamataky.Evans@epa.gov>; Dubey, Susmita <dubey.susmita@epa.gov>; Jones, Toni <Jones.Toni@epa.gov>; Wall, Steve <Wall.Steve@epa.gov>
Subject: Follow ups from today's call

129ers,

Following up from the call, here is a link to the landfill stay that was posted on our website:

https://www.epa.gov/stationary-sources-air-pollution/municipal-solid-waste-landfills-new-source-performance-standards-0

Also, I've attached the contact list that I keep (try to) up to date for the 129 workgroup. You should be able to save this to your contacts and use it in the future. Please look it over and let me know if you have any additions/subtractions from the list.

-Mike

Mike Gordon

Environmental Engineer
Office of Permits and State Programs

Air Protection Division
EPA Region III

1650 Arch Street

Philadelphia, PA 19103

(215)-814-2039

Gordon.Mike@epa.gov

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

May 5, 2017

THE ADMINISTRATOR

Mr. Carroll W. McGuffey III
Mr. M. Buck Dixon
Counsel for Republic Services
Troutman Sanders LLP
600 Peachtree Street NE, Suite 5200
Atlanta, Georgia 30308

Mr. Barry Shanoff
Counsel for Solid Waste Association of North America
1100 Wayne Avenue, Suite 650
Silver Spring, Maryland 20910

Mr. Kevin J. Kraushaar
Counsel for National Waste & Recycling Association
4301 Connecticut Avenue, NW, #300
Washington, D.C. 20008

Ms. Carol F. McCabe
Mr. Michael Dillon
Counsel for Waste Management Inc. and
Waste Management Disposal Services of Pennsylvania
Manko, Gold, Katcher & Fox
401 City Avenue, Suite 901
Bala Cynwyd, Pennsylvania 19004

RE: Convening a Proceeding for Reconsideration of final rules entitled "Standards of Performance for Municipal Solid Waste Landfills," 81 Fed. Reg. 59332 and "Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills," 81 Fed. Reg. 59276, both published August 29, 2016.

Dear Mr. McGuffey, Mr. Dixon, Mr. Shanoff, Mr. Kraushaar, Ms. McCabe and Mr. Dillon:

This letter concerns a petition from National Waste & Recycling Association, Solid Waste Association of North America, Republic Services, Inc., Waste Management, Inc., and Waste Management Disposal Services of Pennsylvania, Inc., dated October 27, 2016, to the U.S. Environmental Protection Agency requesting reconsideration, and in some circumstances an administrative stay, of provisions included in the EPA's final rules entitled "Standards of Performance for Municipal Solid Waste Landfills," 81 Fed. Reg. 59332 (August 29, 2016) (i.e. the NSPS), and "Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills,"

ED_001764B_00004816

81 Fed. Reg. 59276 (August 29, 2016) (i.e. the emission guidelines), pursuant to section 307(d)(7)(B) of the Clean Air Act.

We find, under CAA section 307(d)(7)(B), that the petition has raised several objections to the provisions in both subpart XXX and subpart Cf that arose after the comment period or were impracticable to raise during the comment period and that are of central relevance to the outcome of the rule. Therefore, by this letter the EPA is convening a proceeding for reconsideration of the following topics: 1) tier 4 surface emission monitoring; 2) annual liquids reporting; 3) corrective action timeline procedures; 4) overlapping applicability with other rules; 5) the definition of cover penetration and 6) design plan approval. As part of the reconsideration process, the EPA expects to prepare a notice of proposed rulemaking that will provide an opportunity for notice and comment on the issues raised in the petition that meet the standard of CAA section 307(d)(7)(B), as well as any other matter we believe will benefit from additional comment.

As a result of this reconsideration, the EPA intends to exercise its authority under CAA section 307(d)(7)(B) to issue a 90-day stay of the effectiveness of both the NSPS (subpart XXX) and the emission guidelines (subpart Cf). The EPA believes it is appropriate to stay the effectiveness of both rules in their entirety because the topics listed above are integral to both rules. Sources need not comply with these requirements while the stay is in effect.

This letter does not address other requests for reconsideration raised in this and other petitions. Nor does it address the merits of, or suggest a concession of error on, any issue raised in the petition.

If you have any questions on this action, please contact Mr. Peter Tsirigotis in the Office of Air Quality Planning and Standards at (888) 627-7764 or airaction@epa.gov.

Respectfully yours,

E. Scott Pruitt

To: McGee, Tomika[McGee.Tomika@epa.gov]
From: Stanton, Marya
Sent: Wed 6/7/2017 8:17:16 PM
Subject: RE: Briefing materials for tomorrow - TCEQ request extension for MSWLs
TCEQ's Extension Request - Subpart Cf - Draft Response - June 1 2017.docx

Yes, it does. We were waiting for one change, but it is not an important revision, so I've attached the current version. Thanks

Mary A. Stanton, Chief

Ozone and Infrastructure Section (6MM-MB)

EPA Region 6

214-665-8377

From: McGee, Tomika
Sent: Wednesday, June 07, 2017 3:08 PM
To: Stanton, Marya <Stanton.Marya@epa.gov>
Cc: Boyce, Kenneth <boyce.kenneth@epa.gov>
Subject: RE: Briefing materials for tomorrow - TCEQ request extension for MSWLs

Does the draft letter need to be attached as well? I'm here until 3:30 today and I'm out of the office tomorrow.

From: Stanton, Marya
Sent: Wednesday, June 07, 2017 3:06 PM
To: McGee, Tomika <McGee.Tomika@epa.gov>
Cc: Boyce, Kenneth <boyce.kenneth@epa.gov>
Subject: Briefing materials for tomorrow - TCEQ request extension for MSWLs

Tomika,

Attached are the briefing material for tomorrow's 2:15 briefing on the TCEQ request extension for Municipal Solid Waste Landfills state plan. I will send you the draft response letter later today or early tomorrow. Please add to calendar invite.

Mary A. Stanton, Chief

Ozone and Infrastructure Section (6MM-MB)

EPA Region 6

214-665-8377

To: Boyce, Kenneth[boyce.kenneth@epa.gov]; Suzanne Smith (Smith.Suzanne@epa.gov)[Smith.Suzanne@epa.gov]; Bartley, Richard[Bartley.Richard@epa.gov]; Donaldson, Guy[Donaldson.Guy@epa.gov]
Cc: RA Controls[RA_Controls@epa.gov]
From: Stanton, Marya
Sent: Thur 6/1/2017 6:48:48 PM
Subject: FW: CAA Section 111(d) Plan for MSW Landfills - TCEQ's Request for Extension of Plan Submittal Date
TCEQ's Extension Request - Subpart Cf - Draft Response - June 1, 2017.docx

I concur on this version.

Mary A. Stanton, Chief

Ozone and Infrastructure Section (6MM-MB)

EPA Region 6

214-665-8377

From: Bartley, Richard
Sent: Thursday, June 01, 2017 11:17 AM
To: Donaldson, Guy <Donaldson.Guy@epa.gov>
Cc: Smith, Suzanne <Smith.Suzanne@epa.gov>; Stanton, Marya <Stanton.Marya@epa.gov>; Boyce, Kenneth <boyce.kenneth@epa.gov>
Subject: CAA Section 111(d) Plan for MSW Landfills - TCEQ's Request for Extension of Plan Submittal Date

Hi Guy -

If we are still having the 1pm call to discuss this matter, let's use my conference call line since most of us are working from alternate work locations today:

1-866-299-3188

access code: (b) (6)

Thanks,

Rick

P.S. I have attached a revised draft of our response letter.

To: Stenger, Wren[stenger.wren@epa.gov]
From: Coleman, Sam
Sent: Fri 5/19/2017 1:36:53 PM
Subject: FW: OAR weekly report
OAR Weekly Report 051817.docx
ATT00001.htm

Samuel Coleman, P.E.

Deputy Regional Administrator

EPA Region 6

coleman.sam@epa.gov

214.665.2100 Ofc

214.665.3110 Direct

214.789.2016 Cell

From: Dunham, Sarah
Sent: Thursday, May 18, 2017 6:21 PM
To: Weekly Report Group <Weekly_Report_Group@epa.gov>
Cc: Gunasekara, Mandy <Gunasekara.Mandy@epa.gov>; Shaw, Betsy <Shaw.Betsy@epa.gov>; Lewis, Josh <Lewis.Josh@epa.gov>; Millett, John <Millett.John@epa.gov>; Drinkard, Andrea <Drinkard.Andrea@epa.gov>; Strauss, Alexis <Strauss.Alexis@epa.gov>; Thomas, Deb <thomas.debrah@epa.gov>; Kavlock, Robert <Kavlock.Robert@epa.gov>; Kaplan, Robert <kaplan.robert@epa.gov>; Coleman, Sam <Coleman.Sam@epa.gov>
Subject: OAR weekly report

OAR Weekly Report

May 18, 2017

Upcoming Hot Issues and Important Deadlines

· **Exceptional Events Demonstrations:** By May 31, we intend to approve two requests to exclude ozone monitoring data affected by exceptional events. Concurrences by the Agency on these demonstrations will be the first for ozone-related events under the revised exceptional events rule.

o The Ute Indian Tribe of the Uintah and Ouray Reservation claimed that a stratospheric ozone intrusion caused exceedances of the 2015 ozone standard in June 2015 at four tribal ozone monitors in the Uinta Basis and asked that these data not be used for regulatory purposes. Region 8 provided the necessary technical demonstration and OAR will sign the concurrence letter.

o The Washoe County Health District submitted exceptional events demonstrations for wildfire ozone events that caused exceedances of the 2015 ozone standard in August 2015 and July 2016 at a monitor in Reno, Nevada. Region 9 will sign the concurrence letter.

· **Scientific Advisory Board (SAB) Review of Risk and Technology Review (RTR) Screening Methodologies:** On May 26, 2017, OAR will request that the SAB conduct a peer review of specific enhancements we have made to our air toxics risk assessment methods. This report describes specific screening methodologies that have evolved since the SAB last reviewed the RTR risk assessment methods in 2009. The screening methodologies are used to quickly identify those facilities in particular RTR source categories that have little potential for human health multipathway or environmental risk, while also identifying those facilities where a refined multipathway or environmental risk assessment may be needed.

Upcoming Meetings, Public Events, or Other Public Releases

· **EPA Clean Air Scientific Advisory Committee Secondary (CASAC) NAAQS Review Panel for Oxides of Nitrogen and Sulfur:** On May 24-25, 2017, the CASAC Secondary NAAQS Review Panel for Oxides of Nitrogen and Sulfur will peer review EPA's first draft of the Integrated Science Assessment (ISA) for Oxides of Nitrogen, Oxides of Sulfur, and Particulate Matter – Ecological Criteria. Following this review, ORD will produce a second draft ISA addressing the comments received from the CASAC panel and the public. The ISA, when final, will provide the scientific basis for the decision regarding the adequacy of the current secondary standards for ecological effects of oxides of nitrogen, oxides of sulfur and particulate matter.

· **Don't Fry Day 2017:** On the Friday before Memorial Day – the unofficial start of summer – EPA will have a banner announcement on the website encouraging Americans to be sun-safe.

Upcoming Decisions

· **For Administrator's signature - Stay Notices for Municipal Solid Waste (MSW) Landfills New Source Performance Standards (NSPS) and Emission**

Guidelines (EG): EPA is initiating a review of the 2016 MSW Landfill NSPS and EG. We are working on two notices: the first is a 3-month stay (using authority in Clean Air Act section 307) and we are aiming for signature on it by the end of this week. The second notice will be a proposal to extend the stay for additional time beyond 3 months (this notice should be to the Administrator's office next week).

· **For Administrator's signature – Stay Notices for Oil and Natural Gas New Source Performance Standards (NSPS)**: EPA is initiating a review of the 2016 Oil and Natural Gas NSPS, as directed by the President in Executive Order 13783. In the near term, we will be moving two stay notices forward for the Administrator's signature. The first of the notices will be a 3-month stay (using authority in Clean Air Act section 307) of the fugitive emissions requirements in the rule, which are scheduled to go into effect on June 3, 2017. The second of the notices will be a proposal to extend the stay for additional time beyond the 3 months and to expand the scope of the issues being stayed. We anticipate the notices will be to the Administrator's office for review/signature next week so that they can be signed and published in the Federal Register by June 2.

· **For Administrator's signature – Wuapaca Foundry Title V Petition Response:** This is an Order denying a petition from a private citizen requesting that EPA object to a title V operating permit issued to two foundry plants located in Wuapaca, Wisconsin.

· **For Administrator's signature – Bunge North America, Inc. Title V Petition Response:** This is an Order responding to a petition from two citizens requesting that EPA object to a title V operating permit issued to the Bunge Grain Elevator in Louisiana.

Recap of the Past Weeks

· **Implementing E.O. 13777:** On Monday, OAR submitted to EPA's Regulatory Reform Task Force its response to the request for recommendations on specific air and radiation actions that could be considered for repeal, replacement, or modification to reduce regulatory burden.

· **EPA Semi-Annual Regional Air Division Director meeting:** This week in Chicago the Air Division Directors (ADDs) from each of the EPA Regional Offices met with senior managers from across OAR. We had productive discussions on a range of air issues.

OAR Weekly Report – May 18, 2017

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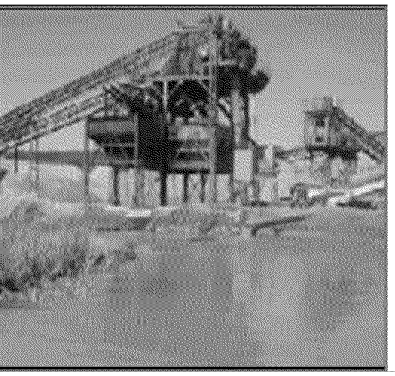
United States Environmental Protection Agency

Office of Resource Conservation and Recovery FY 2016 Accomplishments Report



Office of Resource Conservation and Recovery
Office of Land and Emergency Management
Washington, DC 20460

January 2017

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Director's Message

Dear Office of Resource Conservation and Recovery Colleagues,

To every member of the Office of Resource Conservation and Recovery (ORCR) team, I take this opportunity to express my appreciation and gratitude for your dedication and steadfast efforts to accomplish our mission. The milestones outlined in this report are a direct result of your substantial effort and invaluable collaboration with our many partners including the Regions, other EPA program offices, state and tribal governments, other federal agencies, environmental groups and our industry counterparts. Working together is the key to our collective success.

This year, the Employee Viewpoint Survey Team established a mission, vision, and values framework for our program that is inspiring and invigorating. I want to draw your attention to ORCR's three core values: 1) people as the source of our strength; 2) a foundation of critical thinking, science, and collaboration; and 3) serving the public with integrity and a strong work ethic. As I reflect on FY16, I see these values mirrored in the work that we do – the way we rely on our colleagues for support and expertise, in our delivery of detailed and high quality analyses that support our policy decisions, and the dedication we have to protect the public and human health and the environment. As you review our accomplishments, I hope you will see our values, as I do.

With the advent of FY17, we marked the Resource Conservation and Recovery Act's (RCRA) 40th anniversary; the ushering in of a new Administration and we have begun planning for the future of waste and materials management, not only in the near-term, but thinking 20 years and beyond. 2017 offers us a new opportunity to highlight the benefits of RCRA and the work that we do. Stay tuned for another great year!

Barnes Johnson, Director
Office of Resource Conservation and Recovery
U.S. Environmental Protection Agency

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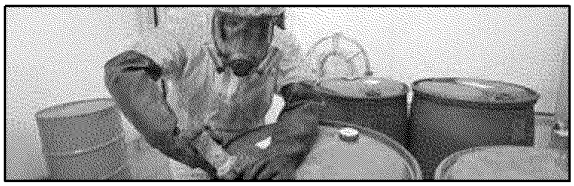
Protecting Communities and the Environment

The Resource Conservation and Recovery Act is making a visible difference in communities across the country by cleaning up existing and preventing future contamination, and enabling the reuse of land.

Generator Improvements Final Rule – The Generator Improvements Rule was cleared and advanced to the Administrator for final signature. This rule revises the hazardous waste generator regulations making them easier to understand and providing greater flexibility in how hazardous waste is managed to better fit the business operations of today's marketplace. The revisions will protect Americans by enhancing the safety of facilities /that create hazardous waste and the response capabilities of emergency responders by improving risk communication. The new rule directly responds to feedback from our regulated community, states, communities, and other stakeholders and represents a significant multi-year investment in evaluating and addressing the challenges in the hazardous waste program. (MRWMD, PMCAO)



Non-Hazardous Secondary Materials (NHSM) Final Rule – The Administrator signed a final rule adding three materials to the list of categorical non-waste fuels under the 40 CFR Part 241 Non-Hazardous Secondary Materials. The three materials are construction and demolition (C&D) wood processed from C&D debris; paper recycling residuals generated from the recycling of recovered paper, paperboard and corrugated containers and combusted by paper recycling mills whose boilers are designed to burn solid fuel; and creosote-treated railroad ties that are processed and then combusted in certain types of units. (MRWMD/ PMCAO)

Non-Hazardous Secondary Materials Other Treated Railroad Ties Proposed Rule – ORCR completed the development of proposed amendments to the Non-Hazardous Secondary Materials standards under 40 CFR Part 241. The proposal adds three types of other treated railroad ties to the list of categorical non-wastes: processed creosote-borate, copper naphthenate and copper naphthenate-borate treated railroad ties, under certain conditions depending on the chemical treatment. Similar to the final rule on creosote treated railroad ties (see above entry), persons burning these non-hazardous secondary materials would not need to evaluate them under the general self-implementing case-by-case standards and procedures that would otherwise apply to non-hazardous secondary materials used in combustion units. (MRWMD/PMCAO)

Import/Export Final Rule – ORCR finalized changes to existing regulations regarding the export and import of hazardous wastes from and into the United States. The final rule will provide greater protection to human health and the environment by providing for increased transparency, data sharing and more efficient compliance monitoring for international shipments. These new requirements are responsive to the concerns raised by commenters, EPA's Office of Inspector General (OIG), and the Commission for Environmental Cooperation, and strengthen tracking of and reporting on individual export and import shipments. This action also brings the United States into compliance with its legal obligations under the Organization for Economic Cooperation and Development (OECD) 2001 Council Decision, and complies with Executive

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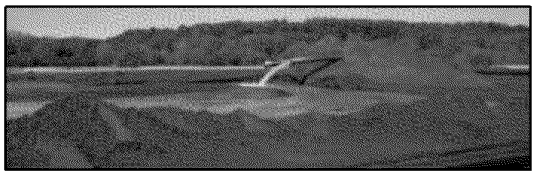
Order 13659 on streamlining the export/import process for U.S. businesses. (MRWMD/ PMCAO)

Import/Export Internet Posting Proposed Rule – In conjunction w/ the Import/Export Final Rule, EPA proposed to amend regulations regarding the export and import of hazardous wastes from and into the United States. The proposed rule would require exporters of hazardous waste and facilities who receive hazardous waste from foreign sources to maintain a single publicly accessible Web site on which they would be required to post confirmations of receipt, and confirmations of completed recovery or disposal of individual hazardous waste import and export shipments. The proposed rule would increase transparency and public access to information on the movement and destination of hazardous waste exports and imports; improve monitoring of the management of hazardous waste import and export shipments; and exclude certain hazardous waste export and import documents from Confidential Business Information claims. (MRWMD/PMCAO)



Coal Combustion Residuals (CCR) Direct Final Rule – The EPA Administrator signed a direct final rule and a companion proposal to extend the compliance deadlines for certain inactive CCR surface impoundments that were established by the regulations for the disposal of CCR under subtitle D of RCRA. The comment period for the direct final rule ended on August 22, 2016. Because no adverse comments were received, these changes were effective on October 4, 2016. This rule fulfills the first of EPA's obligations under the partial settlement of the lawsuit challenging certain provisions of the CCR final rule in April 2015. (MRWMD)

Implementation Assistance on the Coal Combustion Residuals Disposal Rule- ORCR continued to provide implementation assistance on the April 2015 CCR Final Rule in fiscal year 2016. ORCR provided continued leadership on the national CCR Implementation Workgroup, holding bi-weekly calls with the Regional Offices whereby ORCR assisted regions with reviewing, developing and approving state Solid Waste Management Plans. ORCR also provided assistance to a number of states on specific applicability and technical implementation issues. ORCR posted on the CCR website a list of the publicly available websites that were required by CCR facilities to develop as part of the CCR Final Rule. MRWMD also developed an Access database to track the compliance data that were (and continue to be) posted on approximately 300 publicly available websites. ORCR provided technical assistance to Congressional staff members on draft legislative proposals. Further, we testified before the US Commission on Civil Rights on the CCR rule and reviewed and commented on their report. (MRWMD)

Draft Open Dump Inventory – ORCR posted for comment on its website the initial draft inventory of open dumps with respect to coal ash disposal facilities. EPA is required to publish an open dump inventory to assist the states in complying with the directive in section 4003(a)(3) of the Resource Conservation and Recovery Act that state solid waste management plans shall provide for closure and upgrading of open dumps (e.g., facilities which do not comply with the revised federal criteria). Open dumps, in this context, refer to facilities which are not in compliance with the federal CCR rule. (MRWMD/PMCAO)

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Research Development and Demonstration (RD&D) Permit Extension Rule – The EPA Administrator signed a final rule revising the maximum permit term for Municipal Solid Waste Landfill (MSWLF) units operating under RD&D permits. This final rule allows RD&D permits for municipal solid waste landfill bioreactors to be extended from 12 to up to 21 years, and allows directors of EPA approved state waste programs to increase the number of renewals for such permits from three to six. The primary basis for this extension is to provide the EPA more time to characterize the performance of RD&D projects. The EPA believes that the period of 21 years strikes an appropriate balance between providing more time for projects to continue operations as research facilities, while providing enough time for the EPA to consider making additional changes to the part 258 MSWLF regulations. This rule was necessary as the authorization for RD&D permits was going to expire and is responsive to the needs of our State partners and the regulated community. (MRWMD/PMCAO)

Federal Research Action Plan (FRAP) on the Use of Tire Crumb on Playing Fields and Playgrounds – On February 12, 2016, EPA, the Centers for Disease Control and Prevention/Agency for Toxic Substances and Disease Registry, and the U.S. Consumer Product Safety Commission launched a multi-agency action plan to study key environmental human health questions about the use of recycled tire crumb in synthetic turf fields and playgrounds. ORCR worked collaboratively with EPA's Office of Research and Development to implement the FRAP, leading the Agency's efforts to conduct outreach to key stakeholders to understand the variability in manufacturing of tires and tire crumb, as well as the construction, and maintenance practices for fields. Stakeholders engaged include: industry representatives; academic institutions; state solid waste regulators; environmental non-profits; and turf field installers and maintenance professionals. The findings from the outreach effort will be incorporated into the study's final report. (RCSD)

Solvent HW Guide – ORCR published a web-based document entitled, *Guide: How to Determine if Solvents That Can No Longer Be Used in the Workplace Are Hazardous Waste*. Thousands of American workers use solvents, many of which become hazardous waste, every day in industrial, commercial, and other non-residential settings. The purpose of this guide is to make people who use and discard solvents aware of RCRA hazardous waste regulations and assist them in making correct hazardous waste determinations for solvents. (MRWMD/PMCAO)

Non-Hazardous Secondary Materials Evergreen Clarification Letter– In November 2015, ORCR issued a clarification letter to Evergreen Recycling Solutions regarding the application of the NHSM standards to their material. The letter concluded that the engineered fuel produced by Evergreen Recycling Solutions by processing and blending construction and demolition material, and burned in combustion units designed to burn coal for energy recovery, would constitute a non-waste fuel under 40 CFR Part 241. (MRWMD)

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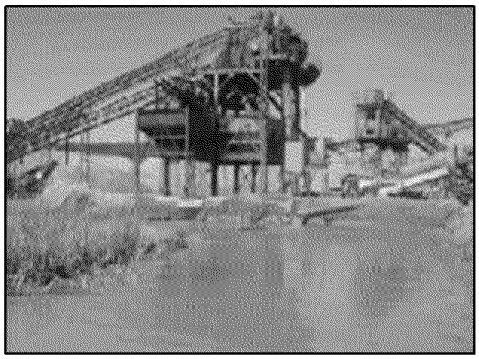
Manufacturing Process Unit (MPU) Memorandum – The Manufacturing Process Unit Memorandum was issued to ensure the states and regulated community understand how the manufacturing process unit exemption applies to filter technologies so that these materials are properly managed and disposed of. ORCR, in coordination with EPA Region 3, Office of General Counsel, and Office of Enforcement and Compliance Assistance, prepared a memo from the ORCR Office Director to the EPA Regions explaining that the MPU exemption does not apply to desulfurization canisters that have been disconnected from the process in which they were providing filtering services. (MRWMD)

Implementation Assistance on the Solvent Contaminated Wipes Rule – ORCR continued to provide implementation assistance on the July 2013 Solvent-Contaminated Wipes Final Rule in fiscal year 2016. ORCR trained EPA's RCRA inspectors on the rule and developed a set of Frequent Questions that answered nitty gritty implementation details of the rule. The Solvent Contaminated Wipes Final Rule Frequent Questions were posted on EPA's website in June 2016. (MRWMD)

Response to Rulemaking Petition on Corrosivity – OLEM signed a notification of tentative denial of this rulemaking petition that would change RCRA's definition of corrosivity. The petition requested two changes to the current corrosivity characteristic regulation: revise the regulatory value for defining waste as corrosive from the current value of pH 12.5, to pH 11.5; and expand the scope of the RCRA corrosivity definition to include non-aqueous wastes in addition to the aqueous wastes currently regulated. The petition was tentatively denied because the materials submitted by the petitioner and additional materials identified by the Agency failed to demonstrate that the requested regulatory revisions are warranted. The comment period on this tentative denial closed on December 7, 2016. (MRWMD)



CERCLA 108(b) Hardrock Mining Proposed Rule – ORCR drafted a proposed rule that would require financial assurance for future CERCLA risks at hardrock mining facilities. The rulemaking team led the Agency workgroup in fully exploring, addressing, and getting decisions to resolve a wide variety of difficult and controversial issues under an extremely tight schedule. Milestones included engaging states and tribes through formal consultation processes, convening a SBREFA Panel, and completing Final Agency Review. The proposed rule package includes the regulatory text, preamble, comprehensive financial formulas, and numerous analyses supporting the proposed approach and justification for the proposal. (PIID/PMCAO)

CERCLA 108(b) Additional Classes Notice – ORCR drafted a notice that the EPA intends to go forward with potential rulemaking to require financial assurance for future CERCLA risks within the chemical manufacturing; petroleum and coal products manufacturing; and electric power generation, transmission and distribution industries. (PIID/PMCAO)

Permit Modifications Report – ORCR finalized the report *Permit Modifications: Safeguarding the Environment in the Face of Changing Business Needs*, which describes the changing nature

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of RCRA hazardous waste permitting work and demonstrates how an adequate and effective permit program is vital not only for initial permits, but also throughout the permit term to enable necessary permit maintenance activities. Permit maintenance, including permit modification, assures that permits remain effective and allows owners and operators to adjust facility operations to meet changing conditions and demands. (PIID)

Waste Fireworks Memo and Brochure – ORCR drafted a memorandum about the safe and legal handling, and storage and treatment of waste fireworks. The memorandum draws on recommendation made by the U.S. Chemical Safety and Hazard Investigation Board (CSB) and communicates safety concerns and requirements under RCRA, as well as best management practices and standard operating procedures that promote safer management of these wastes. In addition, the memo will assist EPA Regions, States, and tribal officials in their oversight responsibilities. ORCR also completed the draft of a brochure communicating regulatory requirements and best management practices for the safe handling and treatment of waste fireworks. Finally, a contract was initiated to complete two studies on: (1) alternative technologies and (2) contamination from open burning and open detonation. (PIID)

Capacity Assurance Planning Analyses – EPA conducted analyses to evaluate the generation and management of wastes containing mercury or dioxins. A report is being developed for state review and publication on the EPA website. The analyses support state efforts to provide the assurance of hazardous waste management capacity (pursuant to CECLA 104 (c)(9)) necessary to be eligible for Superfund remedial action funding. In addition, ORCR and the Office of Superfund Remediation and Technology Innovation (OSRTI) are working to provide analytical reporting tools to help states develop data from RCRAInfo to support future capacity assurance planning efforts. (PIID)

Waste Analysis Plan (WAP) Guidance Training – ORCR is developing training on the *Waste Analysis at Facilities that Generate, Treat, Store, and Dispose of Hazardous Wastes: A Guidance Manual*. The purpose of this guidance is to assist States, EPA, and the regulated community with the application of waste analysis and waste analysis plan requirements under RCRA. The WAP Guidance training will consist of 5 modules, and 10 exam questions and will eventually be hosted on the Environmental Response Training Program Virtual University training website (http://ertpvu.org/). (PIID)

Polychlorinated Biphenyl (PCB) Disposal Approvals – ORCR reviewed a number of PCB disposal approvals and took action by:

- Issuing a risk-based disposal approval under 40 CFR 761.61(c) to members of the National Rural Electric Cooperative Association to dispose of PCB remediation waste generated at secure electric cooperative assets with as-found concentrations less than 50 ppm PCBs in non-TSCA approved disposal facilities, such as municipal solid waste landfills, non-hazardous waste landfills and hazardous waste landfills.

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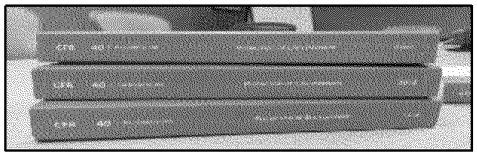
- Issuing three approvals to the National Fuel Gas Supply Corporation, National Fuel Gas Distribution Corporation, and Southwest Pipe Services to modify the sampling requirements for natural gas pipelines, which will encourage reuse and discourage abandonment of pipelines.
- Drafting an amendment to the approval of Blue Lightning Underground Enterprise to allow them to continue to demonstrate their mobile PCB alternate non-thermal disposal technology using the RemedO3zone™ treatment system to treat PCB contaminated soils, pursuant to 40 CFR 761.60(e).
- Issuing a letter to Hydrodec North America, LLC to request an update of their operating approval renewal application for the hydrotreatment of PCBs, in order to reflect new equipment and work practices after the evaluation/assessment of a fire incident.
- Improving boilerplate language to reduce the amount of time it takes to issue or renew approvals and participating in demonstrations at several PCB disposal facilities to renew or issue new PCB disposal approvals. (PIID)

PCB National Meeting – ORCR organized and facilitated a national meeting of PCB staff and managers from Headquarters and the Regions in Washington, DC in August 2016. The meeting covered topics such as: cleanup issues, workgroup efforts, enforcement, resources, disposal, approvals, building materials, research and coordination with other programs, used oil, and more. The third day of the meeting was a combined staff/managers meeting and focused on assessing the biggest issues to the program, program mission and priorities, and messaging for upper management. (PIID)

Operating Interim Status Facilities – Facilities that are under interim status are subject to a permit unless they opt to clean-close. Of highest priority are those facilities that are currently operating. ORCR worked with the Regions to update projections for the issuance of operating permits at facilities that are under interim status. ORCR also requested new information to correct the list and have background information on each. ORCR has a strategy to continue to track these facilities and work with the Regions and states to get them permitted. (PIID)



Encouraging Recycling through 2015 Definition of Solid Waste Final Rule Implementation – ORCR continued to support implementation efforts related to the 2015 Definition of Solid Waste Final Rule by answering questions, updating the website, tracking notifications, and providing training at the Region 6 inspector workshop to Region 6 states and other interested parties. ORCR established a monthly DSW rule user's group meeting to encourage state adoption and help states with implementation. By October 2016, the DSW rule was in effect in seventeen states, with another dozen planning adoption in fiscal year 2017. Further, EPA provided considerable assistance to the Department of Justice in developing briefs to defend the rule and preparing for oral argument before the court. (MRWMD)

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Cathode Ray Tubes(CRTs) – ORCR continued to provide regulatory interpretation assistance and implementation assistance to the states and regulated community regarding the management, recycling, and disposal of cathode ray tubes. As part of this assistance, ORCR presented at E-scrap, participated on Region 3 interstate CRT discussions, and worked with stakeholders to answer vital questions. A number of questions arose this fiscal year around exports of CRTs for use in cement. To provide clarity, ORCR updated its CRT Frequently Asked Questions explaining that an export of CRTs for use in cement that will be placed on the ground is an export of hazardous waste and subject to notice and consent. (MRWMD)

Hazardous Waste Management Grant Program for Tribes – This grant program provides financial assistance to tribal governments and tribal consortia for the development and implementation of hazardous waste programs; for building capacity to improve and maintain regulatory compliance; and for developing solutions to address improper management of hazardous waste on tribal lands. ORCR received nine eligible funding applications for review, and selected four of the nine applications for further consideration for full or partial funding. (PIID)

Cleaning up Land and Water

In partnership with the states, the EPA is cleaning up contaminated sites while keeping industries in business, preserving jobs and saving taxpayers' money. The EPA is controlling and eliminating contamination at sites using short-term stabilization measures and long-term, cleanup remedies to return land and water to productive uses to support economic development and recreational uses.

Post-Closure Care Guidance – After EPA's release of the draft *Guidelines for Evaluating and Adjusting the Post-Closure Care Period for Hazardous Waste Disposal Facilities under Subtitle C of RCRA* for public review and comment, EPA addressed comments and sent the final draft to OMB for interagency review. This guidance is intended to assist regulators in evaluating conditions and determining whether the post-closure care period should be adjusted or allowed to end. Specifically, this post-closure care guidance summarizes the relevant federal regulatory requirements; sets forth a recommended process for preparing for and making an evaluation of the post-closure care period in a timely fashion; and recommends criteria for consideration in assuring that human health and the environment will be adequately protected in making decisions to extend, shorten, or end the post-closure care period. The guidance also allows regulated entities to improve their understanding of the factors that affect the length of the post closure care period and what is necessary to ensure the ongoing protection of human health and the environment. This increased understanding will highlight the costs of land disposal and ultimately encourage waste generators and handlers to better evaluate long-term waste management strategies, including waste minimization. (PIID)

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Speeding Up RCRA Cleanups Using Lean – RCRA FIRST – The RCRA Corrective Action program continued to promote nation-wide implementation of RCRA FIRST tools developed during the two Lean events held in previous years. During FY16, the Corrective Action program held two 3-day Lean events in Ohio and Washington, and 1-day RCRA First Tool Box trainings were hosted by Ohio, Michigan, Region 4, California, Region 10 and New York. In addition, a new manager's implementation half day training was developed and debuted in New York in September 2016. A compendium of the RCRA First tools was completed and posted on EPA's website. RCRA First Corrective Action Framework meetings were successfully held at a number of facilities, and the RCRA First Tools are being used at additional facilities particularly in Regions 3 and 7. (PIID)

Individual Facilities Analyses – The RCRA Regional Branch Chiefs compiled a list of the RCRA Corrective Action "2020 facilities" that they expect will not achieve Remedy Construction Complete or one of the environmental indicators by the year 2020, and primary "barriers" that are slowing down progress at these facilities. This analysis, referred to as the Individual Facilities Analyses, identified a number of barriers that were common to several facilities. Additional work to refine the analysis and to identify available resources, approaches and tools to address these barriers will follow in FY17. (PIID)

Identifying Scope of Future Cleanup Responsibilities and Workload Analysis – Non-2020 – ORCR and Regional staff worked with state counterparts, to review RCRAInfo and file data on more than 1200 RCRA Subtitle C treatment, storage and disposal facilities that are not included in EPA's Government Performance and Results Act (GPRA) measures for RCRA corrective action. The effort is intended as a workload analysis to understand the scope of non-2020 facilities, and the need for corrective action, and the extent to which they have been cleaned up under RCRA corrective action or other authorities. (PIID)

Support for Cleanup Policy Development for Lead and Per- and Polyflouroalkyl Substances (PFAS) – ORCR supported the development of revised EPA cleanup policies for lead (based on CDC reference levels) and PFAS including PFOA and PFOS (based on Office of Water's Health Advisory). ORCR coordinated informal surveys with the Regions and states regarding the number of sites they anticipated would have levels of lead or PFAS at or above the concentrations in the new clean-up policies. (PIID)

Support for Soil Gas Mitigation Standard Revision – ORCR supported the expansion of the American National Standards Institutes' revised Radon Mitigation for Single Family Homes standard so that it would be applicable to all soil gas contaminants (in second public review at this time) and includes chemical vapor intrusion.

Advancing Cleanup of Sites with Chemical Vapor Intrusion – ORCR initiated, designed and conducted a state-of-the-science workshop (with several hundred state government attendees via the webinar) on chemical vapor intrusion. Significant advancements such as the use of local

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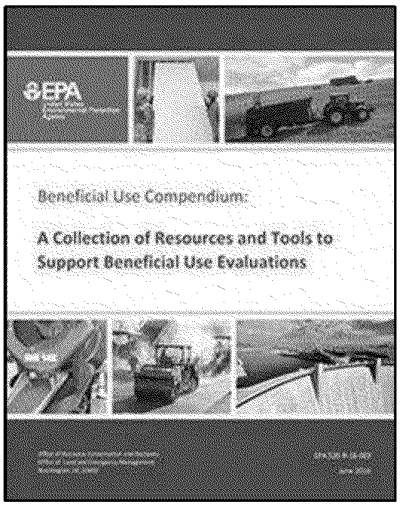
authorities to assist in Long Term Stewardship, the use of radon as an indicator of chemical vapor intrustion, and statistical experts' initial exploration of possible approaches to developing a statistical test for the vapor intrusion pathway monitoring data. (PIID)

PCB GPRA Goal - ORCR continued to refine and track the PCB GPRA measure, which counts cleanup, storage, disposal, and decontamination approvals issued by ORCR and the Regions. In FY16, ORCR and the Regions issued 182 PCB approvals. Out of this, 149 were for cleanup approvals under 40 CFR 761.61(a) or (c), and the other 33 approvals were commercial storage, disposal, or decontamination approvals. By issuing these approvals, ORCR and the Regions are ensuring safe cleanup and disposal of PCBs, and preventing exposures to human health and the environment. (PIID)

Conserving Resources

The EPA and the states advance sustainable materials management in the marketplace by working to promote use and reuse across the life cycle of materials thereby reducing the need for waste disposal capacity and minimizing the need to obtain new mineral resources.

Beneficial Use (BU) Methodology and Compendium - ORCR completed and released the *Methodology for Evaluating the Beneficial Use of Industrial Non-Hazardous Secondary Materials (BU Methodology)*; and the *Beneficial Use Compendium: A Collection of Resources and Tools to Support Beneficial Use Evaluations (BU Compendium)* documents to support states, territories, tribes, and the regulated community with advancing the beneficial use of industrial non-hazardous secondary materials. The BU Methodology presents EPA's approach for evaluating a wide range of industrial non-hazardous secondary materials and their associated beneficial uses. The BU Compendium provides a more detailed discussion of specific considerations that may arise in certain evaluations, as well as a list of existing tools and resources (e.g., fate and transport models, human or ecological screening benchmarks, etc.) that can assist with these evaluations. These documents were developed to help address one of the primary barriers to increasing beneficial use of secondary materials: a lack of risk information and tools to help decision-makers evaluate the potential for adverse impacts to human health and the environment (RCSD/PMCAO).



Sustainable Materials Management (SMM) Strategic Plan for FY2017-2022 - In November 2015, EPA released the SMM Strategic Plan for FY17-22. This strategic plan represents the collective thinking of EPA staff and management across the country, as well as input from many stakeholders including states, industry, and non-governmental organizations. The life cycle-based decision-making and systems-based approaches of SMM reflected in this strategic plan offer far greater opportunities for addressing the complex environmental issues we face today than traditional resource, waste and chemicals management approaches. The strategic priorities chosen as the focus for EPA's future SMM efforts present significant opportunities to achieve

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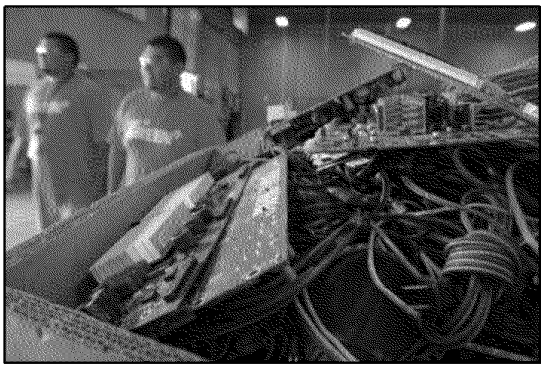
environmental, economic, and social results. The priority areas include: Life Cycle Thinking, the Built Environment (buildings, roads, bridges, infrastructure), Sustainable Management of Food, Sustainable Packaging, Sustainable Electronics Management, Measurement, and SMM International Efforts. (RCSD)

Sustainable Electronics Management –



- ORCR developed a draft Electronics Strategy for FY2017-FY2022 that provides direction for electronics efforts, including potential stakeholder engagement and evolution of the existing SMM Electronics Challenge.
- As a co-lead for the National Strategy for Electronics Stewardship (NSES), ORCR, the General Services Administration and the Department of Energy produced a draft policy that outlined the governance and process for NSES future efforts.
- SMM Electronics Challenge implementation continued with the recognition ceremony for 2014 results and a dialogue between OLEM senior management and Challenge participants in February 2016. The recognition event for 2015 results was also planned and is scheduled to occur in January 2017.
- The draft Minimum Environmental Criteria, an EPA commitment under the NSES, was completed. These criteria can be used to evaluate voluntary recycling standards to ensure that all recycler certification programs meet the needs of federal agencies.
- ORCR and EPA's Office of International and Tribal Affairs helped organize and participated in the 2016 International E-Waste Management Network (IEMN) meeting in Malaysia. The IEMN enables environmental officials from within and beyond the Asia-Pacific region to exchange information and best practices on e-waste management.
- Finally, ORCR continued its collaboration with the Office of Research and Development on a domestic electronics flows study, a commitment under the NSES. (RCSD)

Advancing Sustainable Materials Management under the G7 – ORCR continued its involvement in the G7 Alliance on Resource Efficiency. ORCR participated in Alliance workshops held in Germany, the United Kingdom and Japan, and hosted a U.S. workshop in March 2016. The U.S. workshop included approximately 190 representatives from the governments of nine countries (all G7 countries, as well as from South Korea and the Netherlands), individual industries and associations, non-governmental organizations, international organizations, academia, and others. The workshop proceedings report (*U.S.-hosted Workshop on the Use of Life Cycle Concepts in Supply Chain Management to Achieve Resource Efficiency*) and a second report entitled, "*Advancing Resource Efficiency in the Supply Chain – Observations and Opportunities for Action*" were released. From the U.S.-hosted workshop, ORCR identified seven critical needs areas that help to highlight both the challenges and opportunities that we face in creating a resource-efficient future (RCSD).

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Sustainable Management of Food - Since the announcement of the U.S. 2030 Food Loss and Waste 50% Reduction Goal, ORCR achieved several important milestones that continue to motivate government, industry, and businesses on the issue of wasted food.

- **2015 Food Recovery Summit:** As one of the first steps toward the national goal, ORCR supported a national meeting (co-hosted with the Southeast Recycling Development Council, the State of North Carolina, the State of South Carolina, and BioCycle) to bring together stakeholders who represent different areas of the food system. The goal of the summit was to gather critical feedback, develop connections with private and public partners, and identify actionable areas to achieve significant wasted food reductions. Related events include: 1) Feeding the 5000 DC, 2) Reduce and Recover: Save Food for People Conference, 3) West Coast Food Recovery Summit, and 4) Innovation Zone at Global Sustainability Summit.
- **A Call to Action by Stakeholders:** This living resource identifies six critical areas as the framework for a successful strategy that will allow wide-scale and sustained reductions in food loss and waste.
- **Further with Food: Center for Food Loss and Waste Solutions:** USDA and EPA convened 11 entities to form a public-private partnership to develop a virtual clearinghouse of information and resources on food loss and waste. The objective of the virtual clearinghouse is to serve as the nation's premier public (virtual) meeting place to find and exchange information about reducing, recovering and recycling food loss and waste in the United States. The partnership will be launching Further with Food: Center for Food Loss and Waste Solutions (the Center) in early 2017.
- **"Food: Too Good To Waste" Implementation Guide and Toolkit:** A resource to help consumers understand how much food they waste. This toolkit will assist consumers in making small changes in how they shop for, prepare, and store food.
- **Collection of Information on Anaerobic Digestion (AD) Facilities Processing Wasted Food:** This information request will collect data on AD facilities processing wasted food, and will review and update the existing facility inventory. (RCSD)

Food Recovery Challenge (FRC) – ORCR led EPA's Food Recovery Challenge with over 800 participants who reduced their climate footprint, saved money, and fed the hungry. The FRC recognizes participants who included a baseline measure for their wasted food, implemented best practices, documented results, and provided leadership on diverting wasted food from landfills. In 2015, the participants diverted more than 691,000 tons of wasted food from landfills or incinerators. Of this total, more than 302,000 tons of wholesome food was donated to people in need, 313,000 tons were composted, and nearly 75,000 tons were sent to anaerobic digestion. During this year's challenge, 13 FRC participants were selected for awards and recognition to highlight accomplishments in wasted food prevention, leadership, innovation, education and outreach, and endorsement. These efforts reduced carbon emissions by nearly 407,000 metric tons of CO2 equivalent, equal to taking approximately 86,000 cars off the road for a year.

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Participants achieved results through practices such as targeting food recovery from farmers" markets, creating food waste volunteer programs in high schools, and giving college students more choices. The FRC Team also recruited new participants, provided support for current participants with technical assistance and education, and successfully managed the data reporting system (RCSD).

Recycling Economic Information Study - ORCR developed a comprehensive economic analysis of the contributions of recycling and reuse to the U.S. economy. The draft study assesses the creation of jobs and economic activity in communities with an updated analytical framework and new Waste Input Output methodology. In short, the key findings from the draft 2016 study provide new estimates of the numbers of jobs, wages and tax revenues that result from recycling. When published, it is expected to provide policy makers and investors with information on the economic value of the recycling and materials reuse industries in communities. (RCSD)

Advancing Sustainable Materials Management: Facts and Figures 2014 – ORCR developed the draft Advancing Sustainable Materials Management: Facts and Figures 2014 fact sheet. The draft report provides the most recent national data on annual U.S. waste generation, recycling, composting, combustion with energy recovery and landfilling, as well as the benefits of recycling and composting. Also in draft form are memos describing the methodology for food waste generation and recycling for 2014, electronics generation and recycling for 2013 and 2014 and construction and demolition generation for 2014. (RCSD)

Volume-to-Weight Conversion Factors for Solid Waste – ORCR developed volume-to-weight conversion factors for solid waste. The memo provides factors for 15 material categories, including municipal solid waste factors for glass, plastic and metals, as well as for construction and demolition debris. These factors are valuable when planners work with the recycling and composting data presented in EPA's Advancing Sustainable Materials Management: Facts and Figures Report. They are also used in portfolio manager's waste tracker, which tracks waste and materials used by businesses. (RCSD)

Federal Government Leading by Example –

- ORCR led Headquarters and Regional implementation of the Federal Green Challenge (FGC). In 2015, 290 federal facilities took steps to reduce pollution, support renewable energy, and operate more efficiently as part of the Federal Green Challenge. Participants saved more than $21 million across natural gas, fuel oil, paper purchasing, water, and municipal solid waste categories. The reduction of greenhouse gas emissions was

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equivalent to annual emissions of more than 518,000 passenger vehicles with a carbon dioxide equivalent of more than 2.4 million metric tons. More specifically, FGC participants:
    - Diverted over 406,000 tons of waste from landfills;
    - Saved 215 million gallons of water;
    - Reduced natural gas usage by over 437 million cubic feet; and
    - Sent 6,300 tons of end of life electronics to third party recyclers.

- ORCR staff participated in a GSA/EPA multi-facility Green Team that successfully negotiated and implemented a compostable waste collection program for William J. Clinton East, West, North and South. The GSA will expand the compost services to over 50 federal buildings in the National Capital Region. The Green Team was recognized with a White House 2016 GreenGov Presidential Award.
- ORCR joined a multi-agency team to update Federal Food Service Guidelines to add sustainable food management practices for federal food service managers, contractors and vendors. The updated guidelines will be used throughout the federal government to inform and require food recovery at all levels of the EPA Food Hierarchy. (RCSD)

Portfolio Manager – ORCR worked with the Office of Air and Radiation to build and launch a new waste and materials tracking feature in ENERGY STAR's Portfolio Manager data system. Portfolio Manager is the industry standard energy measurement and tracking tool for commercial buildings in the United States and Canada. More than 450,000 U.S. buildings, representing over 45 percent of the nation's commercial building space, were already using the tool to benchmark and improve performance, prioritize investments, and verify reductions in energy and water use across these tens of thousands of buildings. With the addition of waste and materials tracking in Portfolio Manager, building owners and managers can now apply their successful energy management techniques holistically to reduce not only waste, but also the associated carbon footprint that results from landfill decomposition and incineration, as well as the costs of disposal. (RCSD)

Used Oil – ORCR met on a number of occasions with representatives from industry and with *NORA, An Association of Responsible Recyclers* (NORA) to discuss technical and regulatory issues related to the recycling of used oil. As a result of those meetings, ORCR now includes re-refined motor oil as part of the Federal Green Challenge, allowing participants to track re-refined motor oil purchases and used motor oil recycling. ORCR is also cooperating with OAQPS to determine whether emissions from used oil-fired space heaters can be controlled. (PIID/RCSD)

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WasteWise –

- ORCR led the 2016 implementation of WasteWise, EPA's flagship partnership program supporting organizations to achieve cost savings, improve efficiency, and reduce their climate footprint through sustainable materials management and waste reduction. ORCR provided support to Regional offices and participants including reporting and data management, technical assistance, and recognition. RCSD evaluated, selected, and recognized seven WasteWise awardees, including research institutes, retailers and local governments. WasteWise participants reported preventing and diverting a total of nearly 7.4 million tons of waste from landfills and incinerators, which represents a greenhouse gas reduction equivalent of taking nearly 1.3 million passenger vehicles off the road for one year.
- ORCR successfully obtained an extension of the Information Collection Request covering data collection for the SMM Challenges and WasteWise. The Office of Management and Budget granted this extension as a result of the inclusion of the SMM Challenges and WasteWise in a National Center for Environmental Economics (NCEE) attribution study. Thus, ORCR has begun coordination with NCEE on this three-year project. (RCSD)

Council on Environmental Quality (CEQ) Recycled-Content Paper Policy Support – ORCR supported the efforts of the (CEQ) to evaluate and revise recycled content levels for printing and writing grade papers purchased under mandatory provisions of Executive Order 13693. ORCR staff served on multiple workgroups and provided technical assistance to identify life-cycle issues associated with increasing the levels of recycled content in specific types of papers and provided expertise in identifying key stakeholder issues. Representative from EPA Regions 2 and 9 also provided workgroup support. (RCSD)

Partnering and Innovating

Tribal Waste Management Capacity Building Training Grant – ORCR sponsored four training courses at the Northern Arizona University's Institute for Tribal Environmental Professionals (ITEP) using the Tribal Waste Management Capacity Building Training Grant. The courses focused on: (1) developing integrated waste management plans; and (2) developing and implementing tribal solid waste codes. In addition, ITEP offered travel scholarships to support the trainings, as well as provided travel scholarships to assist tribes that volunteered to participate in the EPA's National Tribal Waste Management Peer Matching Program. Eighty individuals participated in the training. (PIID)

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National Tribal Waste Management Peer Matching Program – EPA continued the National Tribal Waste Management Peer Matching Program for tribes and tribal consortia to provide technical and financial assistance to tribes in developing and implementing tribal waste management programs. Peer matching is an effective mechanism for tribes to promote best waste management practices, and to build sustainable waste management programs consistent with the requirements of RCRA. Nine tribes participated in the Peer Matching Program in FY16. (PIID)

Tribal Waste Management Technical Assistance Measure – ORCR continued to implement the Agency-Wide Plan to Provide Solid Waste Management Capacity Assistance to Tribes. In accordance with the Agency-Wide Plan, EPA implemented the internal measure, "Number of tribes where waste management program capacity has been improved through technical assistance provided by the EPA." In FY16, the regions provided technical assistance to approximately 75 tribes. (PIID)

Tribal Infrastructure Task Force Waste Programs Workgroup – ORCR continued collaboration with member agencies of the Infrastructure Task Force (Department of Agriculture - Rural Development, Department of Health and Human Services-Indian Health Service, Department of Interior-Bureau of Indian Affairs, Department of Housing and Urban Development and EPA) to identify and develop solutions to waste management challenges in Indian county. The Waste Programs Sub-Workgroup includes representatives from the federal government, tribes, tribal consortia and technical assistance providers. In 2016, the Workgroup submitted draft reports to the ITF federal agencies on sustainable tribal solid waste programs, community engagement and improving information on open dumps. . (PIID)

2015 Biennial Report Collection – ORCR has been working with States and Regions on the collection of the biennial report data for the 2015 report cycle. This data is reported by large quantity generators and treatment, storage and disposal facilities. The collection of the data represents the hazardous waste generated and managed on site as well as waste received off-site. Information Collection and Analysis Branch (ICAB) provides user support on the loading process as well as working through data quality checks for all data. Confirmation of all the data is the responsibility of the State, the Region and the HQ representative. The data will be released to the public, via RCRAInfo Web. (PIID)

State Data Measurement Sharing Program (SMP) – ORCR led a coalition of state agencies that successfully collaborated to expand and improve the SMP data collection on material flows, with a total of 31states and the District of Columbia entering data in FY16. The SMP Team continued to improve key aspects of the online reporting, information sharing and measurement tool to ensure that data can be effectively and reliably shared and used for analysis of materials flows across the nation. The increased accuracy, reliability, and scope of the system will provide signals to the market which may improve materials management, expand the public dialogue on how materials management impacts the economy and the environment and promote successful recycling, reuse and source reduction activities. (RCSD)

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U.S.-Mexico Bilateral Waste Meeting – In February 2016, ORCR organized and held the first ever waste bilateral meeting with the Ministry of Environment and Natural Resources (SEMARNAT), the Mexican environmental agency, and the Federal Attorney's Office for Environmental Protection in Mexico City. The successful bilateral meeting covered upcoming EPA changes to our RCRA hazardous waste export-import regulations, Mexican changes to their spent lead acid battery regulations, e-waste topics, the U.S.-Mexico electronic data exchange of export notice and consent data, among others. OECA joined ORCR at the bilateral meeting. (MRWMD)

Hong Kong Convention Threshold Reporting Values – The Hong Kong Convention, the treaty on ship recycling, requires that ship's owner report the amounts of 13 substances to the Inventory of Hazardous Materials so that when the ship is eventually scrapped, the ship-scrapping facility will know what hazardous substances are on the ship. International threshold reporting values had to be established for the 13 hazardous substances. The U.S. government was the lead for the threshold reporting values and within the U.S., ORCR was the lead for an international working group of the International Maritime Organization's (IMO) Marine Environment Protection Committee which successfully negotiated reporting thresholds for the 13 substances through a multi-year effort involving several dozen countries. The IMO approved the reporting values during April 2016. (MRWMD)

Streamlining SW-846 Review Process – EPA announced a streamlined approval process for non-regulatory SW-846 methods in the Federal Register. Beginning in FY17, non-regulatory methods will be announced for public comment and for final posting on the EPA Hazardous Waste Test Methods web page, rather than through the Federal Register. This new procedure allows for expedited method release, while still incorporating comments from the scientific community. The process for updating SW-846 analytical methods that are required in the RCRA regulations (method defined parameters) will not change, and will still use the Federal Register. (MRWMD)

Retail Strategy – On September 12, 2016, EPA released its Strategy for Addressing the Retail Sector under RCRA's Regulatory Framework. This strategy, which took into account feedback received on EPA's Notice of Data Availability (NODA) for the Retail Sector and information gathered during many stakeholder outreach efforts, outlines a number of Agency commitments. These included existing commitments such as rules underway prior to issuance of the retail NODA (final Definition of Solid Waste and Hazardous Waste Generator Improvements rules and proposed Hazardous Waste Pharmaceuticals rule) and new commitments resulting from the comments on the NODA and directed specifically at the retail sector such as issuance of a Guide to Recycling Aerosol Cans, a Universal Waste Proposed Rule for Aerosol Cans and a Policy on Reverse Distribution and RCRA. All of these activities in combination are intended to ensure a better fit between RCRA and the retail sector. (MRWMD)

RCRA Permit Oversight Strategy – ORCR launched the final *Permit Oversight Strategy* for the RCRA program. The purpose of this strategy is to strengthen oversight of RCRA permits through improved coordination and collaboration with our regulatory partners (in the Regions and the states), in alignment with the high-level principles and best practices for permitting

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developed by the cross-Agency State Program Health and Integrity workgroup. This strategy creates a much needed infrastructure that will increase ORCR's collaborative efforts to timely identify, prioritize, and resolve challenging issues that we face in implementing and overseeing the vast and complex hazardous waste permitting program, as well as sharing of innovative approaches that could be used more broadly. As part of the strategy, HQ regional liaisons have been assigned and regional contacts have been identified. (PIID)

Outreach and support to the RCRA Permitting Program – ORCR continued to engage with stakeholders through a comprehensive network of contacts with the EPA Regions and states to provide them with outreach and technical support regarding permitting issues. For example, each month the Branch coordinates a teleconference call with the RCRA Permit Writers, a group of RCRA officials in the regions and states, to facilitate and address RCRA permitting issues and problems that arise around the country. (PIID)

Public Participation Manual (PPM) – ORCR submitted the Draft Resource Conservation and Recovery Act Public Participation Manual for Tribal Consultation and Public Comment. The PPM is a guide to improving cooperation and communication among all participants in the RCRA permitting and corrective action processes. The scope of the manual reflects EPA's belief that all stakeholders – including permitting agencies, public interest organizations, community members, and regulated facilities – can take steps to increase public participation and encourage meaningful communication. ORCR will publish the final version in FY 2017. (PIID)

Market Capacity Study to Support CERCLA 108(b) Financial Assurance Rulemaking – ORCR led the effort to prepare and submit this study, as requested in appropriations bills by Congress. This topic area required unique expertise, and was difficult to prepare. It was also needed under a very tight deadline. Once completed, the analyses were vetted extensively within EPA (ORCR, OLEM, OCFO, OP, and OCIR), and externally by SBA and OMB. In spite of the difficulties and obstacles, we succeeded in attaining concurrence from all parties and submitted the final report to Congress within their prescribed deadline. (PIID)

Financial Test (FT) Analyses for CERCLA 108(b) Financial Assurance Rulemaking – ORCR conducted numerous versions of alternative tests for consideration. Extensive FT documentation and results were prepared and made available to workgroup members for review. Further work was necessary in coordinating with components of the Agency over the analytical results and their interpretation. In the end, critical compromises were arrived at, thereby permitting the rule to go forward. All such analyses have now been completed for purposes of the proposed rule, and the methods of analyses have been codified in supporting background documents. (PIID)

PCB-Contaminated Used Oil – ORCR continued to work collaboratively with representatives from industry and the NORA to explore ways to address issues associated with reprocessing of

waste oils contaminated with PCBs, in order to promote reprocessing rather than treatment and disposal. Efforts in this area are ongoing, but a strong working relationship with NORA has been forged that will facilitate continued progress in this area. This work involves closely working with OGC and Regional staff. (PIID)

Managing Non-Liquid PCBs (NLPCB) in Place – ORCR led the Cleanup and Implementation Workgroup and worked with the Regions and other Headquarters offices (OCSPP, OGC, OECA) to develop approaches for managing (NLPCBs in place in buildings. The resulting document provides a summary of different approaches for dealing with NLPCBs in place, provides the strengths and weaknesses of each option, and serves as a guideline for which approach to use for specific situations. (PIID)

RCRA Authorization Lean Project – ORCR, along with Regions 1 and 4, Georgia and New Hampshire initiated a RCRA Authorization Lean Pilot Project. This project intends to reduce backlog of pending authorizations and reduce the amount of time it takes to get rules through the state authorization process. The pilot has set clear expectations between the Regions and States, increased communication and reduced non-value added steps. There is also an e-Enterprise component. The EPA and state workgroup has developed an implementation plan and is developing a data collection strategy and performance measures. (PIID)

e-Manifest Regulation Development – The e-Manifest policy team in ORCR completed work on the proposed e-Manifest User Fee Rule in FY 2016. The proposed rule presents the Agency's proposed methodology for determining and revising the user fees that will be charged to manifest users and cover the development and operating costs of the national e-Manifest information technology system. The internal regulatory workgroup process concluded in April 2016, and after OMB Review, the proposed Fee Rule was published in the Federal Register on July 26, 2016. EPA received 26 comments on the proposed rule notice, and staff have analyzed these comments in preparation for the resumption of workgroup activity on the Final Rule during FY 2017. (PIID)

e-Manifest and RCRAInfo Integration – ORCR has been working to fully integrate e-Manifest and RCRAInfo into one platform for industry users, named the Industry App. The Industry App will consist of myRCRAid, Biennial Report, and e-Manifest and is intended for use by facilities that have to report their data to EPA. This integration leverages the data across all aspects of RCRAInfo and reaching out to our partners provides us with the best use of resources. We have reached out to the RCRAInfo user community to establish a design team for e-Manifest. These are State and Regional partners that will help the RCRAInfo team integrate e-Manifest with the Industry App. In addition to the Industry App, the design team will help us integrate the ability to

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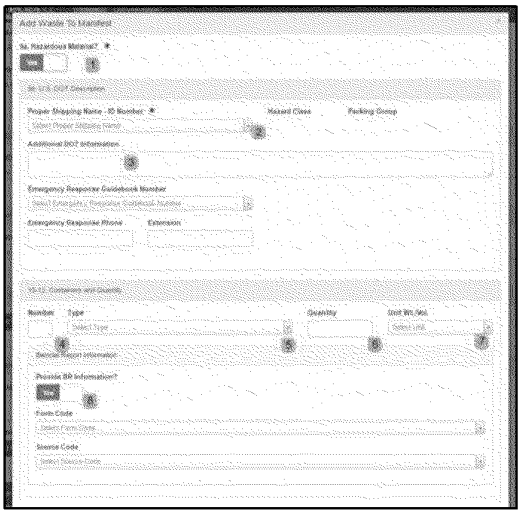
view the manifest data from the State and Regional perspective. The Industry App will go into testing this fall. (PIID)



e-Manifest System Development – The e-Manifest team completed the working prototype on schedule in March, 2016. The team employed the Agile software development methodology, along with user-centered software design, to deliver a working system prototype. Adding to initial system functionality built-out in September 2015, the working prototype focuses on components that impact the receipt and submission of the hazardous waste manifests by the treatment, storage and disposal facilities (TSDFs). Using test data, TSDFs can electronically upload, update and sign manifests; update previously submitted manifests; and upload a scan of a paper manifest for data entry. Collaboration across EPA was crucial to developing the working prototype: the development team, in partnership with OEI and OECA, crafted an electronic signature that is Cross-Media Electronic Reporting Regulation compliant to address Agency requirements and Industry needs. (PIID)

e-Manifest Public Webinars – ORCR staff conducted public webinars on the e-Manifest project in December 2015 and June 2016. The webinars were conducted to provide our e-Manifest stakeholders with an update on the status of both the system and regulation development efforts involved with e-Manifest. The June 2016 webinar provided special emphasis on introducing the content of the Fee Rule proposal to stakeholders and providing them with a pre-publication copy of the proposed rule. The proposed Fee Rule was signed by the Administrator several days prior to the June 30th webinar. (PIID/PMCAO)

e-Manifest Advisory Board – EPA announced membership of the e-Manifest Advisory Board, which will provide critical support and input to the development and operation of an electronic manifest system for the tracking of hazardous waste shipments. Establishing this Advisory Board demonstrates important progress in operationalizing the e-Manifest system, which EPA intends to deploy in the spring of 2018. Board members were appointed by the EPA Administrator from nominations received. Members' appointments are for a fixed duration of three years, beginning February 29, 2016 and ending February 28, 2019, the Advisory Board will meet periodically. The Board will incorporate user needs by: making recommendations on system performance and user fees; providing advice on regulations and guidance; evaluating system effectiveness; and exploring options to encourage system usage. (PIID)

RCRA Training – ORCR convened a RCRA training workgroup, consisting of members from HQ, Regions 1, 3, 4, 5, 6, 7, 9 and 10, to identify and address RCRA and TSCA training needs and to promote the transference of knowledge. (PIID/MRWMD/RCSD/PMCAO)

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- A survey of training needs was sent to Regions (and discussed with some states) to assess both RCRA and TSCA training needs and was completed in March 2016.

- ORCR coordinated and completed training for OIG in August 2016. OIG requested RCRA training for about 15 staff from OIG's Land Division to cover a broad overview of RCRA.

- ORCR created Individual Development Plans (IDPs) for different positions (new hires and more seasoned personnel). There are currently 14 IDPs: base curriculum, regulatory specialist, authorization, state program management, enforcement, permitting, sustainable materials management, corrective action, PCBs, financial assurance, combustion, quality assurance, Subtitle D, and data management.

- With support from ORCR, the Region 4 permit writers training was recorded (August 17-19, 2016). Videos of the sessions will appear on EPA's YouTube channel and will be linked from the IDPs.

- A RCRA training listserv was created on August 8, 2016 to provide an open forum for the posting and discussion of news and information related to RCRA training. Subscription is limited to EPA and state personnel only.

RCRA Training Website – ORCR created a RCRA training web site to be hosted on the Environmental Response Training Program Virtual University (ERTPVU, https://ertpvu.org/). The training web site consists of a main RCRA page, with three submenu pages: Reference Items, Online Courses, and Video Library. Expected launch is February 2017. (PIID)

ORCR as a High Performing Organization

Recruitment – In FY16 ORCR on-boarded nineteen (19) new hires for vacant management and staff positions. ORCR exercised two excepted service hiring authorities (Career Pathways Recent Graduate Program and Peace Corp) to bring on board six new entry level employees. These employees represent diverse professional disciplines ranging from economists, physical scientists, biologists, engineers to a public affairs specialist.

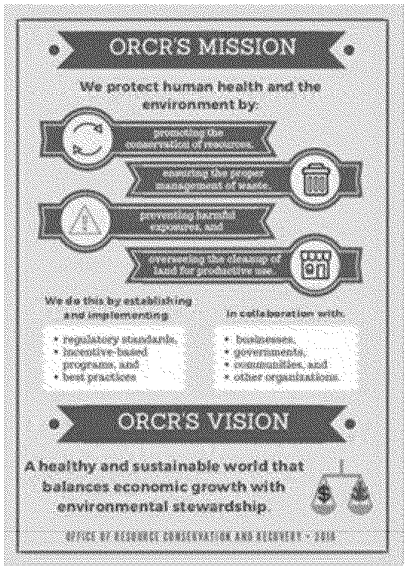
In support of the Agency and OLEM efforts to more efficiently recruit employees, this year ORCR shared pathways program certificates with another OLEM program office, OSTRI. ORCR coordinated and organized the sharing of resumes and scheduling both first and second round interviews. The effort resulted in OSTRI making two selections from an ORCR's engineering pathways certificate, maximizing the use of a single certificate and reducing the number of OLEM recruitment announcements. (PMCAO)

Diversity Event – In an effort to attract and recruit a more diverse candidate pool to EPA, ORCR hosted an event with local area Historically Black Colleges and Universities (HBCUs). Representatives from Howard University, Morgan State University, Bowie State University and the University of the District of Columbia spoke to EPA employees about the historical background of their universities, influential people who attended their universities, and a wealth of knowledge about their Science, Technology, Engineering and Math (STEM) programs. The event was open to all of EPA, and included attendees from multiple AAships. ORCR provided each representative with a USA jobs tip sheet to assist HBCU students with the Federal job application process; information on the Pathway to Opportunities Programs; EPA's intern program and volunteer summer program. ORCR committed to directly sending the Pathways job vacancies to the HBCU's represented and to the State-wide Minority Academic Institutions e-mailing list. (PMCAO)

Career Fairs – Throughout the FY16 ORCR management and staff attended numerous on campus career fairs. Campuses visited include: City Colleges of New York STEM Career Fair, Morgan State University 41th Annual Career Day, Delaware State Fall Career Fair, Maryland Career Consortium, Prince George Community College and UDC. (PMCAO/MRWMD/RCSD/PIID)

Employee Development – ORCR actively supports employee career development opportunities through participation in the OLEM/OW/OPPTS rotational program, skills market place and offering internal management details. During FY16 10 ORCR employees served on details both within EPA and other Federal Agencies.

Managers and senior staff participate in formal and informal mentoring arrangements. All new employees are assigned a ORCR mentor outside their reporting unit for the first six months. ORCR also has seven employees participating in the Agency mentoring program. Four being mentored and three are serving as mentors. (PMCAO/MRWMD/PIID/RCSD)



Employee Viewpoint Team (EVT) – FY16 was a year of implementation for the Employee Viewpoint Team recommendations that were issued in late FY15. In a January memo, the ORCR management team committed to implement a specific subset of the EVT's recommendations in calendar year 2016. Of particular highlight was the creation of a Mission Vision Values team and an Awards team. In consultation with ORCR staff, the Mission Vision Values team drafted and published ORCR's new mission statement, vision statement, and core values. They socialized these accomplishments through All-Hands meetings and a "Value of the Month" campaign that began in September 2016. The Awards team produced draft recommendations to adapt the current awards process to the preferences of ORCR staff expressed in the

EVS results. The management team has also initiated recommended changes such as office hours for the OD and DOD, transparent workplans for all projects, and icebreakers at All-Hands meetings. (PMCAO/RCSD/PMCAO/MRWMD)

2002(b) Regulatory Review Process – The Resource Conservation and Recovery Act section 2002(b) requires EPA to review and as necessary revise its RCRA regulations every three years. While EPA has been informally conducting this practice, ORCR developed a pilot formal process to conduct reviews of RCRA regulations per the requirements of RCRA section 2002(b), which will be tested in fiscal year 2017 with the goal of implementation in 2018. (MRWMD/PMCAO/PIID)

Methods Information and Communication Exchange (MICE) Hotline Transition – The MICE Hotline – a resource for providing information to users of EPA's SW-846 analytical methods – ended after nearly 25 years of operation, resulting in an annual cost savings of over $150,000. In place of the hotline, over 200 technical questions and answers about SW-846 methods were added to the RCRAInfo database, through which method users can ask additional questions. The SW-846 Methods Team continues to answer these questions and all inquiries received through the SW-846 website to support the analytical community. This ensures that EPA will continue to provide quality support to users of EPA's analytical methods into the future under a well-planned, orderly transition accomplished through the foresight and hard work of the MICE Hotline Transition Team. (MRWMD)

New Permit Goal Measures – ORCR proposed two new RCRA hazardous waste permitting goal measures for the next Agency Strategic Plan to better describe the significance of the permitting program's efforts and show the actual status of the ongoing permitting work. The new measure would clearly articulate ORCR's program's long-term objectives, which are ultimately to: (1) keep permits up to date and recognize the full set of facilities that need permit maintenance, and (2) to have initial controls in place to prevent releases. The revised goal measure will provide the following benefits: better communicates the overall characterization of the permitting workload and accomplishments, is more aligned with the distinct objectives of the program; related reports will show the real renewal status of all the permitting facilities and tracks status of renewals to enable effective monitoring of permitting program health; and puts separate focus on the remaining units needing initial controls. (PIID)

Hazardous Waste Incident Tracking Strategy – ORCR developed a draft strategy to reduce the risk of incidents at TSDFs and PCB disposal facilities with as little administrative burden as possible. ORCR in partnership with the Region and the States plans to gather and analyze national incident data with the ultimate goal of detecting trends and informing future actions (permit language, guidance, recommendations, etc.). By collecting and analyzing information on a national scale, the RCRA program will be better poised to identify trends and patterns that may not be evident within one state or one EPA region. ORCR anticipates this information will be important for informing policy, regulations and program implementation initiatives that will prevent future incidents and protect human health and the environment. The incident tracking initiative would develop and provide yearly reports of incidents for States and Regions to use

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and would periodically evaluate incidents to determine whether programmatic action (e.g., model permit conditions, guidance, recommendations) could be taken to reduce risk. (PIID)

Communication and Cross Agency/Organization and Collaboration

RCRAInfo Version 6 (v6) Software Development – ORCR's RCRAInfo team has taken on the task of updating RCRAInfo software to version 6. V6 takes advantage of various Chief Information Officer initiatives such as services first and agile development. ORCR is leveraging services not only within the application but also across the Agency. The RCRAInfo team is working with the RCRAInfo expert groups and the Coordination group to confirm current requirements and to review enhancements from the internal User Support Incident Tracking System for each module. The first iteration of the v6 software was released in July for user testing and evaluation. There have been several iterations since and production deployment is scheduled for November. (PIID)

RCRAInfo Web – ORCR continues to develop RCRAInfo Web, which is the public facing website of the releasable data from RCRAInfo. ORCR has expanded from the Biennial Report section to now having Handler, Permitting, Corrective Action and Financial Assurance access. We have worked closely with our programmatic partners as well as our monthly public FOIA requestors to provide data that they can access on their own. (PIID)

Test Methods/SW-846 Website Transformation – ORCR launched the new Hazardous Waste Test Methods/SW-846 website. Some of the sites exciting updated features include:

- Revamped user-friendly navigation across the entire website.
- A searchable table of all methods in the SW-846 Compendium with direct links to copies of the methods https://www.epa.gov/hw-sw846/basic-information-about-how-use-sw-846#UseWhich.
- A consolidated collection of related Federal Register Notices: https://www.epa.gov/hw-sw846/federal-register-notices-related-sw-846.

The site was redesigned from the ground up to make it easier for chemists and other key stakeholders to locate the methods that they need. (MRWMD/PMCAO)

Corrective Action Website Transformation – ORCR transformed the Corrective Action website, consisting of over 2,000 files, to the new format for the OneEPA website. The Editor-in-Chief formed an editorial board which reviewed and categorized current content to decide what to transform, archive or delete. The Regions had hundreds of pages regarding Corrective Action facilities, and they played a major role in the transformation of these pages. All pages

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needed to be rewritten and pass through several levels of approval. The new format was designed to make the EPA website easier to read and to access relevant information. (PIID/PMCAO)

Landfills Website Transformation – ORCR launched the new landfills web area with new information to help the public learn about the various types of landfills and available data. The site was redesigned to meet the Agency's web standards. (RCSD/MRWMD/PIID/PMCAO)

Waste Reduction Model (WARM) Website Transformation – ORCR published a revised WARM web area to comply with EPA's new web standards. This web area was designed with new information to help the general public learn about the WARM tool and improve site visitors' ability to locate important guidance documents. (RCSD/PMCAO)

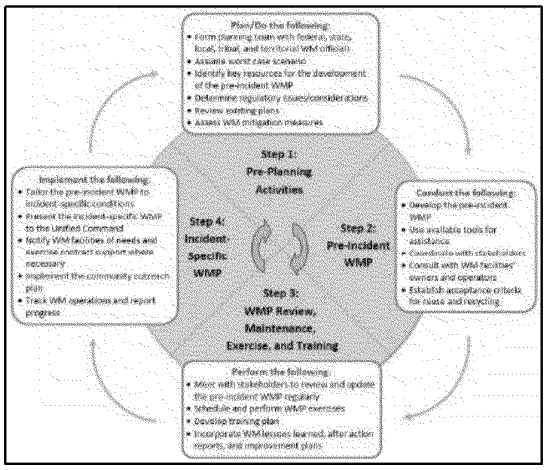
PCBs Website Transformation – ORCR also launched another new website – for PCBs. This new, updated site is a part of ORCR's transition to the OneEPA Web standards. The PCBs website includes several new features and updates:

- Interactive maps and sortable tables to help the regulated community and regulatory agencies locate the EPA Regional PCB coordinator in their areas.
- Redesigned webpages, including searchable tables, to help the general public learn about PCB cleanups or disposal sites as well as how to get involved.
- Updated document pages to improve site visitors' ability to locate guidance documents and regulations.

This site was redesigned to make it easier for businesses, government agencies, researchers and the public to find the resources they need. (PIID/PMCAO)

Continued Leadership on RCRA Interpretative Network (RIN) –The RCRA Interpretative Network is an important mechanism used by ORCR to communicate with EPA regions and states about important RCRA rules and policies as well as an everyday mechanism to facilitate discussions between and among EPA and the states about RCRA issues of concern. The RIN also meets every month to discuss important RCRA topics identified by any member to obtain feedback and thoughts. The RIN consists of about 350 members from every Region and State (except Alaska). (MRWMD)

Four Step Waste Management Planning Process and Waste Decision Diagram – The ORCR Homeland Security Team developed and sent out for EPA review a Four Step Waste Management Planning Process and Waste Decision Diagram. These documents have been developed from years of experience in responding to exercises and incidents that involve waste management processes. The feedback from this review will be utilized to finalize these document as well as act as a foundation for the development of other tools and resources to assisted emergency planners, managers and first responders at the Federal, State, Local and Tribal levels. (MRWMD)



Underground Transportation Restoration Project – The ORCR Homeland Security Team collaborated with other federal agencies on the Underground Transport Restoration (UTR) Project led by the Department of Homeland Security Science and Technology Directorate. ORCR worked with colleagues from the Centers for Disease Control, Federal Emergency Management Agency, as well as project team members from Lawrence Livermore National Lab, Sandia National Lab, Pacific Northwest National Lab, Argonne National Lab, and MIT Lincoln Lab, along with representatives from State and local Public Health departments, and local law enforcement and fire departments. The Bay Area Rapid Transit District, New York City Transit, and the Washington Metropolitan Area Transit Authority were also partners in this project. ORCR led the waste management planning aspects of this multi-agency project, including participating in the Operational Technology Demonstration (OTD) exercise for the UTR project during the summer of 2016. The OTD exercise simulated a release of bacillus anthracis (anthrax) in a subway system, and the characterization, decontamination, and waste management resulting from such an incident. (MRWMD)

Waste Management Planning Tool Quickstart – The ORCR Homeland Security Team developed the initial Quickstart version of the "Pre-Incident All Hazards Waste Management Planning (WMP) Interactive Tool." This tool is intended to assist emergency managers and planners in the public and private sectors in creating or updating a comprehensive plan for managing waste generated from manmade and natural disasters. The tool walks the user through the process of developing and implementing a plan and also contains many resources that can be used as aids to various aspects of the planning process. ORCR recommends that communities have a WMP that addresses the management of waste generated by all hazards. The Quickstart Tool is the first phase of the tool, intended for those who need assistance with getting started with the most critical aspects of waste management planning. (MRWMD)

New York City (NYC) Bio-Response Plan's Waste Management Plan – The ORCR Homeland Security Team led a 12-person workgroup of State and local agencies as well as a EPA Region 2 representative to develop the entire waste management section of the NYC Bio-Response Plan, which was finalized in January 2016. It is the first document of its kind in the nation. ORCR collaboratively developed the waste management chapter for this document to help NYC plan for a Bacillus anthracis (anthrax) incident. ORCR staff and New York State Department of Environmental Conservation scientist were the primary authors of the waste management section of this document. (MRWMD)

Homeland Security Paper Published in the American Waste Management Association (AWMA) Journal – ORCR along with the EPA National Homeland Security Research Lab co-authored a 2016 publication in the AWMA journal, "An Analysis of Waste Management Issues Arising from a Field Study Evaluation Involving Decontamination of a Biological Agent from a Building". This paper built upon research data obtained through an interagency Operational Technology Demonstration project to assess 3 different decontamination technologies and quantifying the types, quantities, and costs associated with the wastes generated from these technologies. This research will assist first responders in their planning and responding to homeland security incidents involving a biological agent. (MRWMD)

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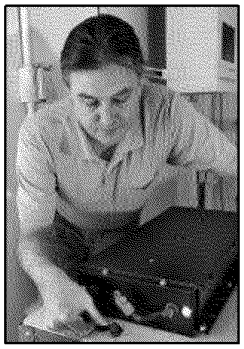
World Health Organization (WHO) Global Security Initiative – The ORCR Homeland Security Team conducted a 2016 analysis of National Waste Management Preparedness capabilities associated with responding to Chemical or Biological incidents. This WHO global initiative was initiated as a result of the Ebola outbreak of 2014-2015 in which waste management issues were found to be a challenge during the Ebola outbreak across the world. This analysis will be published by the WHO along with the analysis conducted by other member countries. (MRWMD)



Interagency Lithium Battery Coordination Group – ORCR participated in the newly formed Interagency Lithium Battery Coordination Group, collaborating with Department of Transportation, Consumer Product Safety Commission, Customs, Federal Aviation Administration, and other agencies on a unified federal approach to hazards and other concerns from lithium batteries, addressing both general lithium battery questions and specific cases, such as hover boards and Samsung Galaxy Note 7 batteries. (MRWMD)

Oil and Gas – In FY16, ORCR continued its support of Agency efforts on unconventional oil and gas issues, including representing OLEM in the Administrator's Hydraulic Fracturing Point of Contact (HFPOC) group. HFPOC activities included coordinating reviews of rulemakings from other agencies and departments, reviewing chapters of the Office of Research and Development's (ORD) *Impacts from Hydraulic Fracturing on Drinking Water* study, and working with STRONGER (State Review of Oil and Natural Gas Environmental Regulations) to coordinate Agency participation in state reviews. The Oil and Gas Team in ORCR also continued to support EPA Regions, States, and other program offices on all manner of oil and gas related regulatory and policy inquiries. Finally, ORCR conducted numerous activities related to a Notice of Intent to sue the Agency over solid waste regulations related to oil and gas exploration and production wastes. (MRWMD)

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