Message

From: Lohrke, Gregory [lohrke.gregory@epa.gov]
Sent: 4/18/2019 10:43:02 PM
To: Fiedler, Kerri [Fiedler.Kerri@epa.gov]
Subject: RE: Summary Info for Utah Midyear - Due noon on April 25th

Yes. Done. Thanks for the forward

From: Fiedler, Kerri
Sent: Thursday, April 18, 2019 3:35 PM
To: Lohrke, Gregory <lohrke.gregory@epa.gov>
Subject: FW: Summary Info for Utah Midyear - Due noon on April 25th

Greg, could you please add your information from Tuesday into this file? Thanks for your help, I'm having troubles opening the document remotely.

Kerri,

The HMIWI status remains the same for Utah. I've added the question above it about MSW landfill plan status. They may have no set plans, since HQ is still unclear about when a new submittal deadline will be set, or if the relevant subpart will be revised.

MSW Landfill Plan
Is Utah anticipating development and submittal of a 111(d) state plan for existing municipal solid waste landfills as required by the Emission Guidelines at 40 CFR part 60, subpart Cf? Alternatively, will Utah be submitting a negative declaration in the case of there being no designated facilities within the State's jurisdiction? The EPA published a proposed rule on October 30, 2018 (83 FR 54527), setting a new deadline for state plan submittals. If this rule is finalized, the new submittal deadline for state plans applying the emission guidelines of Subpart Cf will be August 29, 2019.

Hospital/Medical/Infections Waste Incinerator (HMIWI) Plan
On January 11, 2018, we re-sent Utah our comments on their draft plan. Is Utah DAQ actively working on a plan revision? There is only one existing facility (Stericycle in Salt Lake City) currently operating, but Utah is anticipating it being shut down when construction and permitting is complete at a new facility in Tooele, UT. There is no need for an approved HMIWI plan once the facility shuts down. Once the new facility is operating, the state will continue to have delegated authority to implement and enforce the HMIWI NSPS (40 CFR part 60, subpart Ec) as authorized under CAA §111(c) and 40 CFR 60.4(c).
Question for the state: What is the timing of the shutdown? (An approved HMIWI plan is needed under 111(d) until closure.) Is there a timeline for resubmittal? (Emphasize that Greg Lohrke can help with any pre-submittal review of the plan, if desired.)

Gregory Lohrke
U.S. EPA Region 8 | Indoor Air, Toxics & Transportation Unit
(303) 312-6396

****
Kerri Fiedler
Supervisor, Indoor Air, Toxics & Transportation Unit (8P-AR)
EPA Region 8
1595 Wynkoop St.

Denver, CO 80202
Phone: (303) 312-6493
fiedler.kerri@epa.gov

From: Morales, Monica
Sent: Thursday, April 18, 2019 2:37 PM
To: Jackson, Scott <Jackson.Scott@epa.gov>; Fallon, Gail <fallon.gail@epa.gov>; McPhilliamy, Marisa <McPhilliamy.Marisa@epa.gov>; Lohrke, Gregory <lohrke.gregory@epa.gov>
Cc: Fiedler, Kerri <Fiedler.Kerri@epa.gov>
Subject: Summary Info for Utah Midyear - Due noon on April 25th

Good afternoon – Attached is the summary information document for our Utah midyear call on April 29th that we all need to fill in with the information we want to convey to Utah.

I have already included the topics in the attached to line up with the current agenda. However, for those topics that are the same as last year, I left FY18 info in, so delete/revise as needed.

Please complete **by noon on April 25th**, so I have time to review and ask questions, if needed. Thanks.

Monica S. Morales
Director, Air Program (8P-AR)
U.S. EPA Region 8
1595 Wynkoop Street
Denver, Colorado 80202-1129
Phone: (303) 312-6936
morales.monica@epa.gov

Message

From: Lohrke, Gregory [lohrke.gregory@epa.gov]
Sent: 5/7/2019 10:47:55 PM
To: Fiedler, Kerri [Fiedler.Kerri@epa.gov]
CC: Morales, Monica [Morales.Monica@epa.gov]
Subject: 2019 Mid-Years -- 111(d) Agenda Items and Blurbs
Attachments: 2019 mid-year agenda and blurbs.docx

Kerri,

Please find attached the agenda items and talking points for the remaining 2019 state mid-years. I have also updated the Colorado and North Dakota agendas on Sharepoint.

Gregory Lohrke
U.S. EPA Region 8 | Air and Radiation Division
Air Toxics, Radiation and Modeling Branch
(303) 312-6396

Colorado

Municipal Solid Waste (MSW) Landfill Plan

The EPA published a proposed rule on October 30, 2018 (83 FR 54527), setting a new deadline for state municipal solid waste landfill plan submittals. If this rule is finalized, the new submittal deadline for state plans under the Emission Guidelines of 40 CFR part 60, subpart Cf will be August 29, 2019.

Is Colorado anticipating developing and submitting an updated 111(d) state plan for existing municipal solid waste landfills? Or, will Colorado be submitting a negative declaration because there are no longer any designated facilities within the state's jurisdiction?

Hospital Medical Infectious Waste Incinerator (HMIWI) Plan

Colorado has not submitted an approvable revised HMIWI 111(d)/129 state plan to incorporate the 2009 HMIWI rule amendments. In 2018, CDPHE was informed of the necessity of further revisions to the revised HMIWI plan submittal and notified EPA that the state would consider revising the plan or accepting delegation of the Federal plan. Currently the state's facilities are subject to EPA enforcement of the Federal plan.

Will Colorado submit an approvable revised HMIWI state plan or receive delegated authority to implement and enforce the Federal HMIWI plan? Alternatively, Colorado may submit notice that all designated facilities under the HMIWI rule have ceased operation and submit a negative declaration of existing facilities.

Commercial and Industrial Solid Waste Incineration Units (CISWI)

Colorado has an approved CISWI 111(d)/129 state plan with effective date of April 26, 2018.

- **2019 Technical Amendments**

EPA issued technical amendments to address certain testing and monitoring issues identified during the CISWI rule implementation phase. These amendments also offer regulatory flexibilities to owners and operators of CISWI units. Is Colorado aware of these amendments and the additional clarification on regulatory provisions provided by the EPA's final rulemaking action (84 FR 15846)? Will Colorado be amending the CISWI state plan and supporting state regulations to reflect these technical amendments?

CDPHE Contact for 111(d)/129 Issues

In 2018, there were staff transitions at CDPHE which left EPA without an established point of contact at CDPHE for coordinating 111(d)/129 issues. What is the best point of contact for coordinating action on the above issues?

North Dakota

Withdrawal of Hospital Medical Infectious Waste Incinerator (HMIWI) Plan

North Dakota has notified EPA that it will be withdrawing its HMIWI plan and has submitted a negative declaration declaring an absence of affected facilities after the only facility in the state ceased operations. This negative declaration will likely be processed with the final full approval of the states operating permits program.

Commercial and Industrial Solid Waste Incineration Units (CISWI)

North Dakota has an approved CISWI 111(d)/129 state plan with effective date of May 25, 2018.

- **2019 Technical Amendments**

EPA issued technical amendments to address certain testing and monitoring issues identified during the CISWI rule implementation phase. These amendments also offer regulatory flexibilities to owners and operators of CISWI units. Is North Dakota aware of these amendments and the additional clarification on regulatory provisions provided by the EPA's final rulemaking action (84 FR 15846)? As the state is working on resubmittal of its 111(d)/129 state plans after transferring authorities to the NDDEQ, will North Dakota be amending the CISWI state plan and supporting state regulations to reflect these technical amendments?

Municipal Solid Waste (MSW) Landfill Plan

The EPA published a proposed rule on October 30, 2018 (83 FR 54527), setting a new deadline for state municipal solid waste landfill plan submittals. If this rule is finalized, the new submittal deadline for state plans under the Emission Guidelines of 40 CFR part 60, subpart Cf will be August 29, 2019.

Is North Dakota anticipating developing and submitting an updated 111(d) state plan for existing municipal solid waste landfills? Or, will North Dakota be submitting a negative declaration because there are no longer any designated facilities within the state's jurisdiction?

South Dakota

Hospital Medical Infectious Waste Incinerator (HMIWI) Plan

South Dakota has indicated that it has one co-fired combustor subject to the requirements of the HMIWI rule. Does South Dakota still plan on submitting a revised HMIWI state plan? Alternatively, South Dakota may accept delegated authority of the Federal plan. When and how can EPA and South Dakota proceed on this matter?

Municipal Solid Waste (MSW) Landfill Plan

The EPA published a proposed rule on October 30, 2018 (83 FR 54527), setting a new deadline for state municipal solid waste landfill plan submittals. If this rule is finalized, the new submittal deadline for state plans under the Emission Guidelines of 40 CFR part 60, subpart Cf will be August 29, 2019.

Is South Dakota anticipating developing and submitting an updated 111(d) state plan for existing municipal solid waste landfills? Or, will South Dakota be submitting a negative declaration because there are no longer any designated facilities within the state's jurisdiction?

Montana

Hospital Medical Infectious Waste Incinerator (HMIWI) Plan – Delegation of Federal Plan

In 2015, Montana decided to receive delegation of the HMIWI Federal plan as an alternative to revising a state-authored submittal. As late as early 2018, Montana's accepting delegated

authority to implement the Federal plan was still the agreed upon path forward. Is it still Montana's intention to finalize a delegation of authority? What is Montana's progress in this area, and is there capacity at Montana DEQ to finish this delegation arrangement during FY 19?

Municipal Solid Waste (MSW) Landfill Plan

The EPA published a proposed rule on October 30, 2018 (83 FR 54527), setting a new deadline for state municipal solid waste landfill plan submittals. If this rule is finalized, the new submittal deadline for state plans under the Emission Guidelines of 40 CFR part 60, subpart Cf will be August 29, 2019.

Is Montana anticipating developing and submitting an updated 111(d) state plan for existing municipal solid waste landfills? Or, will Montana be submitting a negative declaration because there are no longer any designated facilities within the state's jurisdiction?

Message

From: Lohrke, Gregory [lohrke.gregory@epa.gov]
Sent: 10/23/2018 10:32:05 PM
To: Morales, Monica [Morales.Monica@epa.gov]; Farris, Laura [Farris.Laura@epa.gov]
CC: Fiedler, Kerri [Fiedler.Kerri@epa.gov]
Subject: RE: Proposal: Plan Submission Deadlines for the 2016 Emission Guidelines for existing Municipal Solid Waste (MSW) Landfills

I wanted to follow up on this after participating in the monthly section 129 workgroup (which tangentially discusses 111(d) issues). At least one other regional contact in the 129 workgroup is on the landfill rule reconsideration working group. Of some note is that this reconsideration working group apparently considered it premature to have a definite (or even a proposed) timing for the reconsidered MSW landfill rule, or for the submittal and review of 111(d) state plans related to that rule.

Key points:

- The proposed ACE rule would align the timeline of future 111(d) state plan submittals and Federal plan development to match that of SIPs and FIPs
- The EPA will be using this lengthened timeline for the MSW landfill EG [giving states until August 29, 2019 to submit a plan]
- There is a caveat that finalization of this state plan timeline is dependent on finalization of the proposed changes made by the ACE rule to 40 CFR part 60 [August 29, 2019 may not be permanent as the submittal deadline].

From: Lohrke, Gregory
Sent: Tuesday, October 23, 2018 12:54 PM
To: Morales, Monica <Morales.Monica@epa.gov>; Farris, Laura <Farris.Laura@epa.gov>
Subject: RE: Proposal: Plan Submission Deadlines for the 2016 Emission Guidelines for existing Municipal Solid Waste (MSW) Landfills

Thanks Monica

From: Morales, Monica
Sent: Tuesday, October 23, 2018 12:12 PM
To: Lohrke, Gregory <lohrke.gregory@epa.gov>; Farris, Laura <Farris.Laura@epa.gov>
Subject: FW: Proposal: Plan Submission Deadlines for the 2016 Emission Guidelines for existing Municipal Solid Waste (MSW) Landfills

Monica S. Morales
Director, Air Program (8P-AR)
U.S. EPA Region 8
1595 Wynkoop Street
Denver, Colorado 80202-1129
Phone: (303) 312-6936
morales.monica@epa.gov

From: Perez, Idalia
Sent: Tuesday, October 23, 2018 12:11 PM
To: Air Division Directors and Deputies <Air_Division_Directors_and_Deputies@epa.gov>
Subject: Proposal: Plan Submission Deadlines for the 2016 Emission Guidelines for existing Municipal Solid Waste (MSW) Landfills

ADDs,

Today, the Acting Administrator signed a proposal to extend plan submission deadlines for the 2016 Emission Guidelines for existing Municipal Solid Waste (MSW) Landfills. The proposed amendments would align state plan timing requirements with those recently proposed in the Affordable Clean Energy (ACE) rule. The new timing requirements would extend state plan submission deadlines to August 29, 2019. EPA would review submitted state plans for completeness within 6 months from submission and review for approval within 12 months of the completeness review. In aligning with the ACE proposal, the new timing requirements would also extend the timing to 2 years for the EPA to promulgate a federal plan for states that fail to submit an approvable state plan. In addition, EPA is taking comment on whether previously submitted state plans should be resubmitted in order to provide consistency and clarity for compliance.

The pre-publication version of the proposal is available at: https://www.epa.gov/stationary-sources-air-pollution/municipal-solid-waste-landfills-new-source-performance-standards

Feel free to share this link with your key stakeholder groups.

Idalia M. Pérez, Ph.D. | OAR Lead Region Coordinator
U.S. Environmental Protection Agency – Region 9
75 Hawthorne St. (AIR-1), San Francisco, CA 94105
P: 415.972.3248 | email: perez.idalia@epa.gov
OAR Lead Region SharePoint Site

Our mission is to protect human health and the environment.

Message

From: Fiedler, Kerri [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=D98346B4D0AD4CCB87C77CEF03365B42-FIEDLER, KERRI]
Sent: 4/18/2019 11:34:57 PM
To: Lohrke, Gregory [lohrke.gregory@epa.gov]
Subject: RE: Summary Info for Utah Midyear - Due noon on April 25th

Thanks Greg.

****

Kerri Fiedler
Supervisor, Indoor Air, Toxics & Transportation Unit (8P-AR)
EPA Region 8
1595 Wynkoop St.
Denver, CO 80202
Phone: (303) 312-6493
fiedler.kerri@epa.gov

From: Lohrke, Gregory
Sent: Thursday, April 18, 2019 4:43 PM
To: Fiedler, Kerri <Fiedler.Kerri@epa.gov>
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Gregory Lohrke
U.S. EPA Region 8 | Indoor Air, Toxics & Transportation Unit
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Phone: (303) 312-6493
fiedler.kerri@epa.gov

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Sent: Thursday, April 18, 2019 2:37 PM
To: Jackson, Scott <Jackson.Scott@epa.gov>; Fallon, Gail <fallon.gail@epa.gov>; McPhilliamy, Marisa <McPhilliamy.Marisa@epa.gov>; Lohrke, Gregory <lohrke.gregory@epa.gov>
Cc: Fiedler, Kerri <Fiedler.Kerri@epa.gov>
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Director, Air Program (8P-AR)
U.S. EPA Region 8
1595 Wynkoop Street
Denver, Colorado 80202-1129
Phone: (303) 312-6936
morales.monica@epa.gov

Message

Sent: 5/22/2019 4:39:54 PM
To: Sheppard, Andrew [sheppard.andrew@epa.gov]; Boyce, Kenneth [boyce.kenneth@epa.gov]; Buss, Jeffrey [Buss.Jeffrey@epa.gov]; BECKHAM, LISA [BECKHAM.LISA@EPA.GOV]; Dunkins, Robin [Dunkins.Robin@epa.gov]; Ex. 6 - Personal Privacy
Palmer, Karen [Palmer.Karen@epa.gov]; Marks, Matthew [Marks.Matthew@epa.gov]
CC: Costa, Allison [Costa.Allison@epa.gov]; Bartley, Richard [Bartley.Richard@epa.gov]; Gardner, Allison [Gardner.Allison@epa.gov]; Lo, Doris [Lo.Doris@epa.gov]; Riedel, Brian [riedel.brian@epa.gov]; Zimpfer, Amy [Zimpfer.Amy@epa.gov]; Bigioni, Neil [bigioni.neil@epa.gov]
Subject: RE: MSW Landfill State Plans Update
Attachments: NPR DE MSWL State Plan.docx

Hi All,

Following up on today's call. Here is Region 3's NPR for the Delaware landfill state plan. I am hoping to put this the package in concurrence at the regional level

Mike Gordon
Acting Branch Chief
Permits Branch (3AD10)
Air and Radiation Division
EPA Region III
1650 Arch Street
Philadelphia, PA 19103
(215)-814-2039
Gordon.Mike@epa.gov

-----Original Appointment-----
From: Sheppard, Andrew
Sent: Monday, May 20, 2019 1:43 PM
To: Sheppard, Andrew; Gordon, Michael; Boyce, Kenneth; Buss, Jeffrey; BECKHAM, LISA; Dunkins, Robin; Ex. 6 - Personal Privacy
Ex. 6 - Personal Privacy; Palmer, Karen; Marks, Matthew
Cc: Costa, Allison; Bartley, Richard; Gardner, Allison; Lo, Doris; Riedel, Brian; Zimpfer, Amy; Bigioni, Neil
Subject: MSW Landfill State Plans Update
When: Wednesday, May 22, 2019 11:00 AM-11:30 AM (UTC-05:00) Eastern Time (US & Canada).
Ex. 6 - Personal Privacy

Wanted to set some time to discuss the court hearing and progress on reviewing state plans with you all. Please forward this along to anyone else in your Region you'd like to be on the call.

Message

Sent: 5/8/2019 6:55:26 PM
To: Snyder, Doug [Snyder.Doug@epa.gov]; Gardner, Allison [Gardner.Allison@epa.gov]
CC: Stoltzfus, Robert [Stoltzfus.Robert@epa.gov]
Subject: RE: MSWL
Attachments: NPR WV MSWL State Plan.docx; NPR DE MSWL State Plan.docx

Here are the two notices of proposed rulemaking for the DE and WV municipal solid waste landfills. Ex. 5 - Deliberative Process

Ex. 5 - Deliberative Process

Mike Gordon
Acting Branch Chief
Permits Branch (3AD10)
Air and Radiation Division
EPA Region III
1650 Arch Street
Philadelphia, PA 19103
(215)-814-2039
Gordon.Mike@epa.gov

From: Snyder, Doug
Sent: Wednesday, May 08, 2019 1:53 PM
To: Gardner, Allison <Gardner.Allison@epa.gov>
Cc: Gordon, Michael <Gordon.Mike@epa.gov>; Stoltzfus, Robert <Stoltzfus.Robert@epa.gov>
Subject: FW: MSWL

Mike,

Isn't it great that you are acting manager when this happens?! Anyway, I forwarded this to Allison, the new branch chief, because she will ultimately decide. However, I think the answer is that Bob Stoltzfus and/or myself, and/or any other branch attorney who is needed to meet the court-ordered deadline, will work on these SIPs. You can count on us!

Doug

From: Gordon, Michael
Sent: Wednesday, May 08, 2019 1:48 PM
To: Snyder, Doug <Snyder.Doug@epa.gov>
Subject: MSWL

Hi Doug,

FYI...we got an adverse decision on landfills and are now under a 4 month court ordered deadline to finalize the WV and DE state plans. This is a fairly tight turnaround, especially if we get comments. Will you be the ORC contact? I have some questions on a state plan I am reviewing.

Mike Gordon
Acting Branch Chief
Permits Branch (3AD10)
Air and Radiation Division
EPA Region III
1650 Arch Street

Philadelphia, PA 19103
(215)-814-2039
Gordon.Mike@epa.gov

Appointment

From: Fernandez, Cristina [Fernandez.Cristina@epa.gov]
Sent: 4/10/2019 12:35:20 PM
To: Fernandez, Cristina [Fernandez.Cristina@epa.gov]; Gordon, Michael [Gordon.Mike@epa.gov]; Stoltzfus, Robert [Stoltzfus.Robert@epa.gov]; Snyder, Doug [Snyder.Doug@epa.gov]
CC: Arnold, David [arnold.david@epa.gov]

Subject: Municipal Solid Waste Landfills
Attachments: Landfill Issue Paper.docx
Location: R3-PHL Ionosphere Conf Rm 14-215

Start: 4/24/2019 6:30:00 PM
End: 4/24/2019 7:15:00 PM
Show Time As: Busy

Appointment

From: Fernandez, Cristina [Fernandez.Cristina@epa.gov]
Sent: 4/24/2019 6:23:23 PM
To: Fernandez, Cristina [Fernandez.Cristina@epa.gov]; Gordon, Michael [Gordon.Mike@epa.gov]; Stoltzfus, Robert [Stoltzfus.Robert@epa.gov]; Snyder, Doug [Snyder.Doug@epa.gov]
CC: Arnold, David [arnold.david@epa.gov]

Subject: Municipal Solid Waste Landfills
Attachments: Landfill Issue Paper.docx
Location: R3-PHL Ionosphere Conf Rm 14-215

Start: 4/24/2019 7:00:00 PM
End: 4/24/2019 7:30:00 PM
Show Time As: Busy

Message

From: Becoat, gregory [becoat.gregory@epa.gov]
Sent: 11/28/2018 4:04:22 PM
To: Gordon, Michael [Gordon.Mike@epa.gov]
Subject: Re: update?

Hello,

Hope all is well. Any updates on
ACE
CISWI
MSW Landfills?

Thanks!

From: Becoat, gregory
Sent: Tuesday, October 30, 2018 12:55:33 PM
To: Gordon, Michael
Subject: RE: update?

Solid thanks!

From: Gordon, Michael
Sent: Tuesday, October 30, 2018 10:02 AM
To: Becoat, gregory <becoat.gregory@epa.gov>
Subject: RE: update?

Hi Greg, Here are updates on the following items:

ACE Rule:
Public comment period ends on October 31, 2018. A public hearing was held in Chicago on October 1, 2018. EPA will respond to public comments in a final rule.

CISWI:
EPA received the CISWI plan submitted in August of 2018 and will act on it in a notice of proposed rulemaking.

MSW Landfills:
EPA received the MSWL state plan submitted by the WVDEP in September of 2019. EPA previously said that we are not prioritizing acting on MSWL state plans. On October 23, the Acting Administrator signed a proposal to extend plan submission deadlines for the 2016 Emission Guidelines for existing Municipal Solid Waste (MSW) Landfills. The proposed amendments would align state plan timing requirements with those recently proposed in the Affordable Clean Energy (ACE) rule. The new timing requirements would extend state plan submission deadlines to August 29, 2019. EPA would review submitted state plans for completeness within 6 months from submission and review for approval within 12 months of the completeness review. In aligning with the ACE proposal, the new timing requirements would also extend the timing to 2 years for the EPA to promulgate a federal plan for states that fail to submit an approvable state plan. In addition, EPA is taking comment on whether previously submitted state plans should be resubmitted in order to provide consistency and clarity for compliance.

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: Becoat, gregory
Sent: Tuesday, October 30, 2018 9:54 AM
To: Gordon, Michael <Gordon.Mike@epa.gov>
Subject: update?

111(d) Plans Update

- CISWI Plan (submitted 8/2018)
- MSW Landfill Plan (submitted 9/2018)

Hello,

Is this you as well?

Gregory Becoat
Office of Air Program Planning
U. S. Environmental Protection Agency, Region III
1650 Arch Street (3AP30)
Philadelphia, PA 19103-2023
Work: (215) 814-2036
Fax: (215) 814-2124

APPROVED BY [illegible]

START ACTION NOTICE # 2017-03 DATE 2/20/17

1. **TYPE OF ACTION:** Adopt a federal regulation by reference as Section 30 in 7 **DE Admin Code** 1120 "New Source Performance Standards".

2. **PURPOSE OF ACTION:** On August 29, 2016, the EPA adopted two regulations applicable to municipal solid waste landfills (MSWLs): 40 CFR Part 60 Subpart XXX, which regulated emissions from new MSWLs, and Subpart Cf, which mandated state agencies to develop plan to regulate emission from existing MSWLs. The purpose of these two federal regulations was to reduce the public health risks associated with VOC and methane emissions from MSWLs.

   The purpose of this action is to incorporate the federal requirements of Subpart XXX by reference into Section 30 of 7 **DE Admin Code** 1120. To satisfy the requirements of Subpart Cf the applicability of Section 30 will be expanded such that it will apply to all MSWLs, i.e., both existing and new MSWLs. Once finalized, Section 30 and the State Plan will be submitted to the EPA for approval. There are currently three existing MSWLs in Delaware, all under the Delaware Solid Waste Authority (DSWA). The likely cost increases associated with the new federal requirements should be minimal because all three existing MSWLs are already operating landfill gas collection and control equipment that was installed under a similar regulatory action taken in 1998.

3. **STATUTORY BASIS:** 7 **Del. C.,** Ch. 60, Environmental Control

4. **IS THIS PROPOSED REGULATORY ACTION REQUIRED AS A RESULT OF FEDERAL STATUTE OR REGULATION? IF SO, PROVIDE LINK TO FEDERAL MANDATE.** Yes, this action is required by Subpart Cf of 40 CFR Part 60. See 60.30f at http://www.ecfr.gov/cgi-bin/text-idx?SID=fb8a2f42134eeaec1424357f5fae7cc7&mc=true&node=sp40.7.60.c_0f&rgn=div6.

5. **DATE OF MOST RECENT REVIEW/AMENDMENT:** Not applicable, as this is a new regulation.

6. **LIKELY AFFECTED PUBLIC:** The DSWA is the only entity regulated by this action.

7. **PROPOSED SCHEDULE OF ACTIVITIES:**

Draft Completed – Feb. 2017	Public Hearing Held – Apr. 2017
Proposed Completed – Mar. 2017	Final Published in Register – Jul. 1, 2017
Proposed Published in Register – Apr. 1, 2017	Public Notification and Filing – Jul. 2017

8. **REVIEW COMMITTEE:** As no changes to the federally mandated control requirements are planned and as the Department knows of no issues which require discussion prior to developing and releasing a proposed plan and regulation for comment by the public, the Department finds the need for a review committee unnecessary.

9. **RESPONSIBLE STAFF MEMBER:**

Jim Snead
Delaware – DNREC
715 Grantham Lane
New Castle, DE 19720

302-323-4542 (phone)
302-323-4598 (fax)
jsnead@state.de.us

10. **APPROVALS:**

J R Snead	2/5/17	[illegible]	2.8.17
Responsible Staff Member	Date	Division Director	Date

Snead, James (DNREC)

From:	Marconi, Angela D. (DNREC)
Sent:	Tuesday, February 14, 2017 3:34 PM
To:	'Mike Lenkiewicz'
Cc:	Snead, James (DNREC)
Subject:	FW: Drafts of the 1120-30 and the State Plan are ready for review
Attachments:	1120-30 MSW Landfill Rule - REVIEW DRAFT 2-12-17.doc; 1120-30 MSW Landfill TSD - REVIEW DRAFT 2-12-17.doc; DE Plan - Initial Review Draft.doc

Mike,

Thank you for providing the number of employees at DSWA (112).

Please see attached Delaware State Plan documents. In the DE Plan there is a table on page 8 that is missing some information. If you can provide the Design capacity for each landfill that would be helpful. There is also a column for the Estimated NMOC Emissions (Uncontrolled). I have the numbers for 2015 from the emission inventory submissions. If you can provide the 2016 numbers when you have it, that will be great. We will need the numbers prior to the public hearing (which is a few days before the emission inventory will be due).

2015 NMOC uncontrolled emissions (from LandGEM) are 47.15 MG/yr at CIL; 28.85 MG/yr at CSWMC; and 12.83 MG/yr (all generated using site specific inputs to LandGEM).

The date of the public hearing will be on April 24th at 6 pm in the auditorium of the R&R building in Dover. It will be advertised on March 19th.

Any questions please let me know.
See you on Thursday,

Angela

From: Snead, James (DNREC)
Sent: Monday, February 13, 2017 1:20 PM
To: Marconi, Angela D. (DNREC)
Cc: Amirikian, Ronald A. (DNREC); Gray, Valerie A. (DNREC)
Subject: Drafts of the 1120-30 and the State Plan are ready for review

Hi Angela,

I have attached the following files, which are ready for initial review and comments from DSWA.

1. Ron's Delaware MSW Landfill Plan,
2. The draft version for adoption of Section 30 in Reg. 1120, and
3. The technical support document that indicated the changes to Sub XXX as shown in item 2 above.

If you could send these on to your contact so that can identify in possible areas of concern, I would be grateful.

One other thing, could as request a written comment (email would do) that DSWA has 1) ~XX employees or 2) more than 50 employees? This information is needed confirm that we are exempt from the Regulatory Flexibility Act requirements. I found the DSWA revenues in their 2015 Annual Report that indicates their revenues exceed $10 million, which the other area associated with the exemption.

Thank and please let me know of anything else I do to help you on this.

Jim

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DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

DIVISION OF AIR QUALITY

Statutory Authority: 7 Delaware Code, Chapter 60; (7 **Del.C.** Ch. 60)

7 DE Admin. Code 1120

REGISTER NOTICE

SAN # 2017-03

1120 New Source Performance Standards

1. **TITLE OF THE REGULATIONS:**
   7 **DE Admin. Code** 1120 New Source Performance Standards

2. **BRIEF SYNOPSIS OF THE SUBJECT, SUBSTANCE AND ISSUES:**
   On August 29, 2016, the EPA promulgated two regulations applicable to municipal solid waste landfills (MSWLs). The EPA promulgated 40 CFR Part 60 Subpart XXX under 111(b); Subpart XXX regulated the emissions from new MSWLs. The EPA promulgated 40 CFR Part 60 Subpart Cf under 111(d); Subpart Cf mandated state agencies to develop plans to regulate emissions from existing MSWLs. The purpose of these two federal regulations was to reduce the public health impacts associated with VOC and methane emissions from MSWLs.

   The purpose of this action is to incorporate the federal new MSWL requirements in Subpart XXX by reference as Section 30 of 7 **DE Admin. Code** 1120. To satisfy the existing MSWL requirements of Subpart Cf, the applicability of Section 30 will be expanded to include both existing and new MSWLs. Once finalized, Section 30 and the State Plan will be submitted to the EPA for approval. There are three existing MSWLs in Delaware; all are operated by the Delaware Solid Waste Authority. There are no new MSWLs.

3. **POSSIBLE TERMS OF THE AGENCY ACTION:**
   None

4. **STATUTORY BASIS OR LEGAL AUTHORITY TO ACT:**
   7 Delaware Code, Chapter 60, Environmental Control

5. **OTHER REGULATIONS THAT MAY BE AFFECTED BY THE PROPOSAL:**
   None

6. **NOTICE OF PUBLIC COMMENT:**
   Statements and testimony may be presented either orally or in writing at a public hearing to be held on Monday, April 24, 2017 starting at 6:00 PM in the DNREC office located at 100 W. Water Street (Suite 6A), Dover, DE. If you are unable to attend or wish to submit your comments in advance of the public hearing, please send your comments to address below. Interested parties may also submit written comments to the Department, to the same address below, up until the end of the comment period, which will extend through May 9, 2017, unless a longer 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

7. **PREPARED BY:**
   Jim Snead (302) 323-4542 jsnead@state.de.us March 12, 2017

***Please Note: The Regulatory Flexibility Analysis and Impact Statement for this regulation, as required by 29 Del.C. Ch. 104, is available at:**

http://regulations.delaware.gov/register/april2017/proposed/20 DE Reg 771RFA 04-01-17.pdf

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1120 New Source Performance Standards
(Break in Continuity of Sections)

30.0 Standards of Performance for Municipal Solid Waste Landfills After July 11, 2017

The provisions of Subpart XXX of Part 60, Title 40 of the Code of Federal Regulations - "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, attached hereto, are hereby incorporated herein and adopted by reference, subject to the following changes:

30.1 Wherever the word "Administrator" appears it shall be replaced by the word "Department", with the exception of paragraphs 60.760(b) and 60.764(a)(5).

30.2 The ASTM Standard Test Method D6522-11 is incorporated herein and adopted by reference. The following definitions, subsections and test methods that are referenced in the text of the preceding adoption are also incorporated herein and adopted by reference as they appear in Title 40 of the Code of Federal Regulations, dated July 1, 2016:

30.2.1 The definition of "land application unit", "surface impoundment", "injection well", "waste pile" and "other types of RCRA Subtitle D wastes" as each of those terms is defined in 40 CFR 257.2.

30.2.2 The definition of "sludge" and "solid waste" as each of those terms is defined in 40 CFR 258.2.

30.2.3 The definition of "performance test" in 60.764(a)(3)(i), as the term is defined in 40 CFR 60.8.

30.2.4 The requirements of 40 CFR 51.166 and 52.21, as referenced in 60.764(c).

30.2.5 The requirements of 40 CFR 60.4, as referenced in 60.767(i)(2).

30.2.6 The requirements of 40 CFR 60.7(a)(1), as referenced in 60.767(a)(1).

30.2.7 The requirements of 40 CFR 60.7(a)(4), as referenced in 60.761 and 60.767(e).

30.2.8 The requirements of 40 CFR 60.8, as referenced in 60.764(b)(3)(i), 60.764(e)(1), 60.767(g), 60.767(h), and 60.767(i)(1).

30.2.9 The requirements of 40 CFR 60.17, as referenced in 60.766(a)(2)(ii) and 60.766(a)(2)(iii)(B).

30.2.10 The requirements of 40 CFR 60.18, as referenced in 60.762(b)(2)(iii)(A) and 60.768(b)(4).

30.2.11 The requirements of 40 CFR 60.18(f)(3) and 60.18(f)(4), as referenced in 60.764(e).

30.2.12 The requirements of 40 CFR 258, as referenced in 60.767(k).

30.2.13 The requirements of 40 CFR 258.40, as referenced in 60.762(b)(2)(ii)(D)(2).

30.2.14 The requirements of 40 CFR 258.60, as referenced in 60.767(e).

30.2.15 Methods 2, 2E, 3, 3A, 3C, 18, 21, 25, 25A and 25C in appendix A of 40 CFR Part 60.

30.3 The title of Subpart XXX shall be replaced with the following language: "30.0 Standards of Performance for Municipal Solid Waste Landfills After July 11, 2017."

30.4 Section 60.760(a) shall be replaced with the following language: "The provisions of this subpart apply to each municipal solid waste landfill, open or closed, that commenced construction, reconstruction, or modification after July 17, 2014 or that has accepted waste after November 8, 1987 or that has additional capacity available to accept waste."

30.5 Section 60.762(a) shall be replaced with the following language: "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 must submit an initial design capacity report to the Department as provided in §60.767(a). The landfill may calculate design capacity in either megagrams or cubic meters for comparison with the exemption values. Any density conversions must be documented and submitted with the report. For purposes of 7 **DE Admin. Code** 1130, Title V State Operating Permit Program, 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 7 **DE Admin. Code** 1130, provided it is not a major source as defined in 7 **DE Admin. Code** 1130. Submittal of the initial design capacity report fulfills the requirements of this subpart except as provided for in paragraphs (a)(1) and (2) of this section."

30.6 Delete ", local, or tribal" in Sections 60.761, 60.767(a)(2)(i) and 60.767(a)(2)(ii).

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30.7 Paragraph 60.762(b) 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 either comply with paragraph (b)(2) of this section or calculate an NMOC emission rate for the landfill using the procedures specified in §60.764. The NMOC emission rate must be recalculated annually, except as provided in §60.767(b)(1)(ii). 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 7 **DE Admin. Code** 1130. When a landfill is closed, and either never needed control or meets the conditions for control system removal specified in §60.762(b)(2)(v), a 7 **DE Admin. Code** 1130 operating permit is no longer required."

30.8 Section 60.762(b)(2)(ii) 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 in accordance with paragraph (b)(2)(ii)(A) or (B) of this section, whichever is applicable."

30.9 Section 60.762(b)(2)(ii)(A) shall be replaced with the following language: "*For MSW landfills that commenced construction, reconstruction, or modification on or after July 17, 2014.* The collection and control system must be started up in accordance with paragraph (b)(2)(ii)(A)(1) or (2) of this section, whichever is applicable."

30.10 Add new section 60.762(b)(2)(ii)(A)(1) with the following language: "Within 30 months of the first annual report in which the NMOC emission rate equals or exceeds 34 megagrams per year, unless Tier 2 or Tier 3 sampling demonstrates that the NMOC emission rate is less than 34 megagrams per year, as specified in §60.767(c)(4) or".

30.11 Add new section 60.762(b)(2)(ii)(A)(2) with the following language: "Within 30 months of the most recent NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year based on Tier 2, if the Tier 4 surface emissions monitoring shows a surface methane emission concentration of 500 parts per million methane or greater as specified in §60.767(c)(4)(iii)."

30.12 Section 60.762(b)(2)(ii)(B) shall be replaced with the following language: "*For all other subject MSW landfills.* As expeditiously as practicable but not later than January 8, 2018."

30.13 Section 60.762(c) shall be replaced with the following language: "For purposes of obtaining an operating permit under title V of the Clean Air Act, the owner or operator of an 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 7 **DE Admin. Code** 1130, 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 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 7 **DE Admin. Code** 1130, becomes subject to the requirements of paragraph 5.1.1 of 7 **DE Admin. Code** 1130, regardless of when the design capacity report is actually submitted, no later than:".

30.14 Sections 60.762(c)(1), 60.767(a)(1)(i) and 60.767(b)(1)(i)(A) shall be replaced with the following language: "Ninety days after the date of commenced construction, modification, or reconstruction for MSW landfills that commenced construction, modification, or reconstruction on or after July 17, 2014 or".

30.15 Section 60.762(c)(2) and Section 60.767(b)(1)(i)(B) shall be replaced with the following language: "January 8, 2018 for all other subject MSW landfills."

30.16 Section 60.763(g) shall be replaced with the following language: "If monitoring demonstrates that the operational requirement in paragraphs (b), (c), or (d) of this section are not met, corrective action must be taken as specified in §60.765(a)(3) and (5) or §60.765(c). If corrective actions are taken, as specified in §60.765, the monitored exceedance is not a violation of the operational requirements in this section."

30.17 Section 60.767(a)(1)(ii) shall be replaced with the following language: "The date specified in a State construction or operating permit, if applicable, or January 8, 2018, whichever is earlier, for all other subject MSW landfills."

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30.18 The final sentence in section 60.767(a)(2)(ii) shall be replaced with the following language: "The Department may request other reasonable information as may be necessary to verify the maximum design capacity of the landfill."

30.19 Section 60.767(i)(1)(ii) shall be replaced with the following language: "For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT Web site at the time of the test, you must submit the results of the performance test to the Department."

30.20 Section 60.767(k)(7) shall be replaced with the following language: "The initial report must contain items in paragraph (k)(1) through (6) of this section per year for the initial annual reporting period as well as for each of the previous 10 years, to the extent historical data are available in on-site records, and the report must be submitted no later than thirteen (13) months after the date of commenced construction, modification, or reconstruction for landfills that commenced construction, modification, or reconstruction on or after July 17, 2014 containing data for the first 12 months after August 29, 2016."

30.21 Delete and reserve sections 60.767(k)(7)(i) and 60.767(k)(7)(ii).

30.22 Section 60.768(c)(3) shall be replaced with the following language: "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 §60.762(b)(2)(iii) must 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 or federal regulatory requirements.)"

***Please Note: As the rest of the sections were not amended, they are not being published. A copy of the regulation is available at:**

1120 New Source Performance Standards

DEPARTMENT OF SAFETY AND HOMELAND SECURITY

DIVISION OF STATE POLICE

5500 BAIL ENFORCEMENT AGENTS

Statutory Authority: 24 Delaware Code, Section 5504(e) (24 **Del.C.** §5504(e))

24 **DE Admin. Code** 5500

PUBLIC NOTICE

5500 Bail Enforcement Agents

Notice is hereby given that the Board of Examiners of Bail Enforcement Agents, in accordance with 24 **Del.C.** Ch. 55 proposes to amend the following adopted rule in 24 **DE Admin. Code** 5500 Bail Enforcement Agents: Rule 2.0 - Badges, Patches, Advertisements - clarifying that "Bail Enforcement Agent" must be displayed on the outer most garment; Rule 8.0 - Apprehension Procedures - clarifies where/when a BEA must report an apprehension or surveillance. If you wish to view the complete Rules, contact Ms. Peggy Anderson at (302) 672-5304. Any persons wishing to present views may submit them in writing, by May 1, 2017, to Delaware State Police, Professional Licensing Section, P. O. Box 430, Dover, DE 19903. The Board will hold its quarterly meeting Thursday, May 25, 2017, 10:00am, at the Tatnall Building, 150 Martin Luther King, Jr. Boulevard South, Room 112, Dover, DE.

***Please Note: The Regulatory Flexibility Analysis and Impact Statement for this regulation, as required by 29 Del.C. Ch. 104, is available at:**

http://regulations.delaware.gov/register/april2017/proposed/20 DE Reg 774RFA 04-01-17.pdf

5500 Bail Enforcement Agents

(Break in Continuity of Sections)

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DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

Division of Air Quality

STATE PLAN FOR THE REGULATION OF AIR EMISSIONS FROM MUNICIPAL SOLID WASTE LANDFILLS

March 12, 2017

ED_001764F_00005662-00001

DELAWARE STATE PLAN TO REGULATE AIR EMISSIONS FROM MUNICIPAL SOLID WASTE LANDFILLS

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Delaware State Plan to Regulate Air Emissions from Municipal Solid Waste Landfills

I. Introduction

On March 12, 1996, the Environmental Protection Agency (EPA) promulgated emission guidelines (EG) for the control of landfill gas (LFG) emissions from existing municipal solid waste (MSW) landfills. The EG are found in Subpart Cc of 40 CFR Part 60. Effective August 29, 2016 the EPA finalized a new subpart that updates the EG and Compliance Times for existing Municipal Solid Waste Landfills to reflect changes to the population of landfills and the results of an EPA analysis of the timing and methods for reducing emissions. The revised EG is found in Subpart Cf of 40 CFR Part 60.

Landfill gas contains methane, carbon dioxide, and more than 100 different nonmethane organic compounds (NMOCs) including volatile organic compounds (VOCs), hazardous air pollutants (HAPs), and odorous compounds. Landfills are a significant source of methane, which is a potent greenhouse gas pollutant. The EPA has determined that affects from these compounds include ground-level ozone formation, cancer and noncancer health effects, odor nuisance, methane migration and fire hazard potential, and global warming.

The State of Delaware has developed this State Plan for imposing collection and control requirements on existing landfills, as required by the emission guidelines, Section 111(d) of the Clean Air Act, and 40 CFR Part 60 Subpart B, Adoption and Submittal of State Plans for Designated Facilities.

II. Legal Authorities and Enforceable Mechanism

Effective August 29, 2016, the EPA promulgated a new source performance standard (NSPS) for the control of emissions from new (i.e. newly constructed, reconstructed or modified) MSW landfills. The NSPS is found at 40 CFR Part 60 Subpart XXX (Subpart XXX). The EPA also promulgated emission guidelines for the development of State Plans to control the emissions from existing MSW landfills. The emission guideline is found at 40 CFR Part 60 Subpart Cf (Subpart Cf). 7 **Del.C**. Ch. 60 (Environmental Control) gives the Secretary of the Department of Natural Resources and Environmental Control (DNREC) the legal authority to adopt, implement, and enforce regulations that control the emissions of air contaminants into the atmosphere. Delaware's plan is to adopt into 7 **DE Admin. Code** 1120, "New Source Performance Standards", a new regulation, as Section 30, that incorporates Subpart XXX by reference. When adopting Subpart XXX, the MSW landfills being subject to Section 30 of 7 **DE Admin. Code** 1120 (Section 30) will be expanded to additionally include all MSW landfills that have accepted municipal solid waste after November 8, 1987 or MSW landfills that have additional capacity available to accept municipal solid waste. Thus, Delaware's 3 existing MSW landfills are also subject to Section 30; thereby enabling Delaware to meet the applicability requirements of Subpart Cf. Once promulgated, the regulation and this State Plan will be submitted to the EPA for approval pursuant to 40 CFR 60.27. Delaware has the requisite legal authorities to develop, implement and enforce this State Plan, specifically:

1. Section 6010 "Rules and regulations; plans" of 7 **Del.C**. Ch. 60 gives the Secretary the authority to adopt regulations that control the emissions of air contaminants, which includes the designated pollutants in Subpart Cf, into the atmosphere.

2. Section 6005 "Enforcement; civil and administrative penalties; expenses" of 7 **Del.C**. Ch. 60 gives the Secretary the authority to enforce any rule, regulation, or permit condition.

3. Section 6010 of 7 **Del.C**. Ch. 60, 7 **DE Admin. Code** 1102 "Permits," 7 **DE Admin. Code** 1117 "Source Monitoring, Recordkeeping and Reporting," 7 **DE Admin. Code** 1130 "Title V State Operating Permit Program," and Section 30, gives the Secretary the authority to obtain information necessary to determine compliance.

4. Section 6010 and section 6024 "Right of Entry" of 7 **Del.C**. Ch. 60, 7 **DE Admin. Code** 1102, 7 **DE Admin. Code** 1117, 7 **DE Admin. Code** 1130, and Section 30, gives the Secretary the

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

5. Section 6010 of 7 **Del.C**. Ch. 60, 7 **DE Admin. Code** 1102, 7 **DE Admin. Code** 1117, 7 **DE Admin. Code** 1130, and Section 30, gives the Secretary the authority to require the use of monitors and require emission reports of municipal solid waste landfill owners or operators.

6. Section 6014 "Regulatory and compliance information, facility performance and public information" of 7 **Del.C**. Ch. 60, 7 **DE Admin. Code** 1102, and 7 **DE Admin. Code** 1130 gives the Secretary the authority to make emission data available to the public.

The requisite legal authorities, which are available at the time of the submission of the State Plan, are provided in APPENDIX A of this State Plan.

The complete text of Subpart XXX, as adopted in Section 30, is provided in APPENDIX B of this State Plan. Other referenced documents are available from the Department upon request.

III. Adoption of 40 CFR Part 60 Subpart XXX by Reference

The State of Delaware is adopting Subpart XXX by reference with several changes that also make existing municipal solid waste landfills subject to Section 30. The adoption of this regulation will be incorporated into the State of Delaware "**Regulations Governing the Control of Air Pollution**" in Section 30. This regulation will read as follows:

DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

Division of Air Quality

1120 New Source Performance Standards

30.0 Standards of Performance for Municipal Solid Waste Landfills After July 11, 2017

The provisions of Subpart XXX of Part 60, Title 40 of the Code of Federal Regulations - "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, attached hereto, are hereby incorporated herein and adopted by reference, subject to the following changes:

30.1 Wherever the word "Administrator" appears it shall be replaced by the word "Department", with the exception of paragraphs 60.760(b) and 60.764(a)(5).

30.2 The ASTM Standard Test Method D6522-11 is incorporated herein and adopted by reference. The following definitions, subsections and test methods that are referenced in the text of the preceding adoption are also incorporated herein and adopted by reference as they appear in Title 40 of the Code of Federal Regulations, dated July 1, 2016:

30.2.1 The definition of "land application unit", "surface impoundment", "injection well", "waste pile" and "other types of RCRA Subtitle D wastes" as each of those terms is defined in 40 CFR 257.2.

30.2.2 The definition of "sludge" and "solid waste" as each of those terms is defined in 40 CFR 258.2.

30.2.3 The definition of "performance test" in 60.764(a)(3)(i), as the term is defined in 40 CFR 60.8.

30.2.4 The requirements of 40 CFR 51.166 and 52.21, as referenced in 60.764(c).

30.2.5 The requirements of 40 CFR 60.4, as referenced in 60.767(i)(2).

30.2.6 The requirements of 40 CFR 60.7(a)(1), as referenced in 60.767(a)(1).

30.2.7 The requirements of 40 CFR 60.7(a)(4), as referenced in 60.761 and 60.767(e).

30.2.8 The requirements of 40 CFR 60.8, as referenced in 60.764(b)(3)(i), 60.764(e)(1), 60.767(g), 60.767(h), and 60.767(i)(1).

30.2.9 The requirements of 40 CFR 60.17, as referenced in 60.766(a)(2)(ii) and 60.766(a)(2)(iii)(B).

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30.2.10 The requirements of 40 CFR 60.18, as referenced in 60.762(b)(2)(iii)(A) and 60.768(b)(4).

30.2.11 The requirements of 40 CFR 60.18(f)(3) and 60.18(f)(4), as referenced in 60.764(e).

30.2.12 The requirements of 40 CFR 258, as referenced in 60.767(k).

30.2.13 The requirements of 40 CFR 258.40, as referenced in 60.762(b)(2)(ii)(D)(2).

30.2.14 The requirements of 40 CFR 258.60, as referenced in 60.767(e).

30.2.15 Methods 2, 2E, 3, 3A, 3C, 18, 21, 25, 25A and 25C in appendix A of 40 CFR Part 60.

30.3 The title of Subpart XXX shall be replaced with the following language: "30.0 Standards of Performance for Municipal Solid Waste Landfills After July 11, 2017."

30.4 Section 60.760(a) shall be replaced with the following language: "The provisions of this subpart apply to each municipal solid waste landfill, open or closed, that commenced construction, reconstruction, or modification after July 17, 2014 or that has accepted waste after November 8, 1987 or that has additional capacity available to accept waste."

30.5 Section 60.762(a) shall be replaced with the following language: "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 must submit an initial design capacity report to the Department as provided in §60.767(a). The landfill may calculate design capacity in either megagrams or cubic meters for comparison with the exemption values. Any density conversions must be documented and submitted with the report. For purposes of 7 **DE Admin. Code** 1130, Title V State Operating Permit Program, 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 7 **DE Admin. Code** 1130, provided it is not a major source as defined in 7 **DE Admin. Code** 1130. Submittal of the initial design capacity report fulfills the requirements of this subpart except as provided for in paragraphs (a)(1) and (2) of this section."

30.6 Delete ", local, or tribal" in Sections 60.761, 60.767(a)(2)(i) and 60.767(a)(2)(ii).

30.7 Paragraph 60.762(b) 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 either comply with paragraph (b)(2) of this section or calculate an NMOC emission rate for the landfill using the procedures specified in §60.764. The NMOC emission rate must be recalculated annually, except as provided in §60.767(b)(1)(ii). 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 7 **DE Admin. Code** 1130. When a landfill is closed, and either never needed control or meets the conditions for control system removal specified in §60.762(b)(2)(v), a 7 **DE Admin. Code** 1130 operating permit is no longer required."

30.8 Section 60.762(b)(2)(ii) 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 in accordance with paragraph (b)(2)(ii)(A) or (B) of this section, whichever is applicable."

30.9 Section 60.762(b)(2)(ii)(A) shall be replaced with the following language: "*For MSW landfills that commenced construction, reconstruction, or modification on or after July 17, 2014.* The collection and control system must be started up in accordance with paragraph (b)(2)(ii)(A)(*1*) or (*2*) of this section, whichever is applicable."

30.10 Add new section 60.762(b)(2)(ii)(A)*(1)* with the following language: "Within 30 months of the first annual report in which the NMOC emission rate equals or exceeds 34 megagrams per year, unless Tier 2 or Tier 3 sampling demonstrates that the NMOC emission rate is less than 34 megagrams per year, as specified in §60.767(c)(4) or".

30.11 Add new section 60.762(b)(2)(ii)(A)*(2)* with the following language: "Within 30 months of the most recent NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year based on Tier 2, if the Tier 4 surface emissions monitoring shows a surface methane emission concentration of 500 parts per million methane or greater as specified in §60.767(c)(4)(iii)."

30.12 Section 60.762(b)(2)(ii)(B) shall be replaced with the following language: "*For all other subject MSW landfills.* As expeditiously as practicable but not later than January 8, 2018."

30.13 Section 60.762(c) shall be replaced with the following language: "For purposes of obtaining an operating permit under title V of the Clean Air Act, the owner or operator of an 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 7 **DE Admin. Code** 1130,

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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 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 7 **DE Admin. Code** 1130, becomes subject to the requirements of paragraph 5.1.1 of 7 **DE Admin. Code** 1130, regardless of when the design capacity report is actually submitted, no later than:".

30.14 Sections 60.762(c)(1), 60.767(a)(1)(i) and 60.767(b)(1)(i)(A) shall be replaced with the following language: "Ninety days after the date of commenced construction, modification, or reconstruction for MSW landfills that commenced construction, modification, or reconstruction on or after July 17, 2014 or".

30.15 Section 60.762(c)(2) and Section 60.767(b)(1)(i)(B) shall be replaced with the following language: "January 8, 2018 for all other subject MSW landfills."

30.16 Section 60.763(g) shall be replaced with the following language: "If monitoring demonstrates that the operational requirement in paragraphs (b), (c), or (d) of this section are not met, corrective action must be taken as specified in §60.765(a)(3) and (5) or §60.765(c). If corrective actions are taken, as specified in §60.765, the monitored exceedance is not a violation of the operational requirements in this section."

30.17 Section 60.767(a)(1)(ii) shall be replaced with the following language: "The date specified in a State construction or operating permit, if applicable, or January 8, 2018, whichever is earlier, for all other subject MSW landfills."

30.18 The final sentence in section 60.767(a)(2)(ii) shall be replaced with the following language: "The Department may request other reasonable information as may be necessary to verify the maximum design capacity of the landfill."

30.19 Section 60.767(i)(1)(ii) shall be replaced with the following language: "For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT Web site at the time of the test, you must submit the results of the performance test to the Department."

30.20 Section 60.767(k)(7) shall be replaced with the following language: "The initial report must contain items in paragraph (k)(1) through (6) of this section per year for the initial annual reporting period as well as for each of the previous 10 years, to the extent historical data are available in on-site records, and the report must be submitted no later than thirteen (13) months after the date of commenced construction, modification, or reconstruction for landfills that commenced construction, modification, or reconstruction on or after July 17, 2014 containing data for the first 12 months after August 29, 2016."

30.21 Delete and reserve sections 60.767(k)(7)(i) and 60.767(k)(7)(ii).

30.22 Section 60.768(c)(3) shall be replaced with the following language: "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 §60.762(b)(2)(iii) must 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 or federal regulatory requirements.)"

The complete text of Subpart XXX, as adopted in Section 30, is provided in APPENDIX B of this State Plan. All municipal solid waste landfills in Delaware are subject to Section 30.

IV. Source and Emission Inventories

Delaware has three municipal solid waste landfills that are subject to the requirements of this State Plan. All of these MSW landfills are currently accepting waste, have a design capacity greater than 2.5 million megagrams, and an uncontrolled NMOC emission rate of greater than 34 megagrams per year using Tier 1 procedures. These facilities along with the emission inventories are provided in the table below.

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Municipal Solid Waste Landfills Subject To Emission Guidelines in Subpart Cf					
Facility Name	**County**	**Design Capacity (Million Mg)**	**2015 Estimated NMOC Emissions (Uncontrolled)**	**Tier**	**Year Opened**
Cherry Island (NSWMC-2)	New Castle	9.452	47.15 Mg/year	1	10/85
Central Solid Waste Management Center (CSWMC)	Kent	4.606	28.85 Mg/year	1	10/80
Southern Solid Waste Management Center (SSWMC)	Sussex	5.109	12.83 Mg/year	1	10/84

Note that pursuant to Section 28 of 7 **DE Admin. Code** 1120 each of these three existing municipal solid waste landfills is currently subject to the requirements of 40 CFR Part 60 Subpart WWW.

V. Emission Standards

The emission standards for municipal solid waste landfills are those stated in Section 60.762 of Section 30. These standards include design capacity cutoff for applicability, NMOC emission limits, collection system requirements, types of control device requirements, and length of time of required control for municipal solid waste landfills. The test methods and procedures for determining compliance with the emission standards are those stated in Section 60.764 of Section 30.

The emission standards apply to any municipal solid waste landfill, open or closed, that commenced construction, reconstruction, or modification after July 17, 2014 or that has accepted waste after November 8, 1987 or that has additional capacity available to accept waste.

VI. Process for Review of Design Plans

For a landfill subject to the emission standards, the owner or operator must submit to the Department a Collection and Control Design Plan. This design plan must meet the requirements stated in Section 30.

As provided for in Section 30, the Department will review each submitted design plan and will, in writing, either approve it, disapprove it, or request that additional information be submitted.

VII. Compliance Schedules

The table below specifies the compliance schedule for existing municipal solid waste landfills in the State of Delaware.

Compliance Schedule for Existing Municipal Solid Waste Landfills	
State Plan Submittal to EPA	May 30, 2017
EPA approval of State Plan	Within 4 months of submittal to EPA
Final emission guideline compliance date	For NSWMC-2, CSWMC, and SSWMC, to be completed as expeditiously as possible but no later than 180 days from the effective date of Section 30

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VIII. Public Participation

A public hearing was held on April 24, 2017 at 6:00 pm in the Department of Natural Resources and Environmental Control's office located at 100 W. Water Street, Suite 6A, Dover, DE. Affidavits from the Delaware State News and the Sunday News Journal, and copies of the notices as they appeared in those publications on March 12, 2017 advertising the public hearing are provided in APPENDIX C of this State Plan. A list of the public hearing attendees and other public noticing is also provided in APPENDIX C.

IX. Source Surveillance, Compliance Assurance, and Enforcement

The affected facilities will be subject to the operational standards, test methods and procedures, compliance provisions, monitoring of operations, reporting requirements, and recordkeeping requirements specified in Section 30.

The Department will submit annual reports to the EPA which detail the progress in the enforcement of the State Plan. The first progress report will be submitted to the EPA one year following the approval of the State Plan. The annual report will contain the following information:

1. Enforcement actions initiated against a designated facility during the reporting period,

2. Identification of the achievement of any increments of progress required by the State Plan during the reporting period,

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

4. Submission of additional emission data to update previous progress reports, and

5. Emission inventory data for any municipal solid waste landfill that has accepted waste after November 8, 1987, or that has additional design capacity available to accept waste and that was not in operation at the time of State Plan development but began operation during the reporting period.

Technical reports on all performance testing conducted on the designated facilities, complete with concurrently recorded control device operating data will be retained by the Department and a copy will be sent to the Environmental Protection Agency, Region III.

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APPENDIX A

Legal Authorities

Legal Authority	Links on the Delaware General Assembly website
7 DE Code Chapter 60 - Subchapter I. General Provisions	http://delcode.delaware.gov/title7/c060/sc01/index.shtml
7 DE Code Chapter 60 - Subchapter II. Powers and Duties of Secretary and Department	http://delcode.delaware.gov/title7/c060/sc02/index.shtml
7 DE Admin Code 1102 - Permits	http://regulations.delaware.gov/AdminCode/title7/1000/1100/1102.shtml#TopOfPage
7 DE Admin Code 1117 - Source Monitoring, Record Keeping And Reporting	http://regulations.delaware.gov/AdminCode/title7/1000/1100/1117.shtml#TopOfPage
7 DE Admin Code 1130 - Title V State Operating Permit Program	http://regulations.delaware.gov/AdminCode/title7/1000/1100/1130.shtml#TopOfPage

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APPENDIX B

40 CFR Part 60 Subpart XXX, as adopted in Section 30

Appendix B illustrates the changes being proposed in Section 30 of 7 DE Admin. Code 1120 to 40 CFR Part 60 Subpart XXX. The underline indicates additions being proposed to Subpart XXX and the strikeouts indicate deletions being proposed to Subpart XXX.

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~~Subpart XXX~~ 30.0 Standards of Performance for Municipal Solid Waste Landfills ~~That Commenced Construction, Reconstruction, or Modification After July 17, 2014~~ After July 11, 2017

§60.760 Applicability, designation of affected source, and delegation of authority.

(a) The provisions of this subpart apply to each municipal solid waste landfill, open or closed, that commenced construction, reconstruction, or modification after July 17, 2014 or that has accepted waste after November 8, 1987 or that has additional capacity available to accept waste. ~~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.~~

(b) The following authorities are retained by the Administrator and are not transferred to the state: §60.764(a)(5).

(c) Activities required by or conducted pursuant to a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Resource Conservation and Recovery Act (RCRA), or state remedial action are not considered construction, reconstruction, or modification for purposes of this subpart.

§60.761 Definitions.

As used in this subpart, all terms not defined herein 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 area means a separately lined area of an MSW landfill in which solid waste is no longer being placed. If additional solid waste is placed in that area of the landfill, that landfill area is no longer closed. The area must be separately lined to ensure that the landfill gas does not migrate between open and closed areas.

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 §60.762(b)(2)(i).

Corrective action analysis means a description of all reasonable interim and long-term measures, if any, that are available, and an explanation of why the selected corrective action(s) is/are the best alternative(s), including, but not limited to, considerations of cost effectiveness, technical feasibility, safety, and secondary impacts.

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

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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.

Gust means the highest instantaneous wind speed that occurs over a 3-second running average.

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). Household waste does not include fully segregated yard waste. Segregated yard waste means vegetative matter resulting exclusively from the cutting of grass, the pruning and/or removal of bushes, shrubs, and trees, the weeding of gardens, and other landscaping maintenance activities. Household waste does not include construction, renovation, or demolition wastes, even if originating from a household.

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 chapter. 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 waste. 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.

Leachate recirculation means the practice of taking the leachate collected from the landfill and reapplying it to the landfill by any of one of a variety of methods, including pre-wetting of the waste, direct discharge into the working face, spraying, infiltration ponds, vertical injection wells, horizontal gravity distribution systems, and pressure distribution systems.

Modification means an increase in the permitted volume design capacity of the landfill 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.

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 §60.764.

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.

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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.

Root cause analysis means an assessment conducted through a process of investigation to determine the primary cause, and any other contributing causes, of positive pressure at a wellhead.

Segregated yard waste means vegetative matter resulting exclusively from the cutting of grass, the pruning and/or removal of bushes, shrubs, and trees, the weeding of gardens, and other landscaping maintenance activities.

Sludge means the term sludge as defined in 40 CFR 258.2.

Solid waste means the term solid waste as defined in 40 CFR 258.2.

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.

Treated landfill gas means landfill gas processed in a treatment system as defined in this subpart.

Treatment system means a system that filters, de-waters, and compresses landfill gas for sale or beneficial use.

Untreated landfill gas means any landfill gas that is not treated landfill gas.

§60.762 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 must submit an initial design capacity report to the ~~Administrator~~ Department as provided in §60.767(a). The landfill may calculate design capacity in either megagrams or cubic meters for comparison with the exemption values. Any density conversions must be documented and submitted with the report. For purposes of 7 **DE Admin. Code** 1130, Title V State Operating Permit Program, 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 7 **DE Admin. Code** 1130, provided it is not a major source as defined in 7 **DE Admin. Code** 1130. Submittal of the initial design capacity report fulfills the requirements of this subpart except as provided for in paragraphs (a)(1) and (2) of this section.

(1) The owner or operator must submit to the ~~Administrator~~ Department an amended design capacity report, as provided for in §60.767(a)(3).

(2) When an increase in the maximum design capacity of a landfill exempted from the provisions of §60.762(b) through §60.769 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 must comply with the provisions 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, must either comply with paragraph (b)(2) of this section or calculate an NMOC emission rate for the landfill using the procedures specified in §60.764. The NMOC emission rate must be recalculated annually, except as provided in §60.767(b)(1)(ii). 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~~ 7 **DE Admin. Code** 1130. When a landfill is closed, and either never needed control or meets the conditions for control system removal specified in §60.762(b)(2)(v), a 7 **DE Admin. Code** 1130 operating permit is no longer required.

(1) If the calculated NMOC emission rate is less than 34 megagrams per year, the owner or operator must:

(i) Submit an annual NMOC emission rate emission report to the ~~Administrator~~ Department, except as provided for in §60.767(b)(1)(ii); and

(ii) Recalculate the NMOC emission rate annually using the procedures specified in §60.764(a)(1) until such time as the calculated NMOC emission rate is equal to or greater than 34 megagrams per year,

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or the landfill is closed.

(A) If the calculated NMOC emission rate, upon initial calculation or annual recalculation required in paragraph (b) of this section, is equal to or greater than 34 megagrams per year, the owner or operator must either: Comply with paragraph (b)(2) of this section; calculate NMOC emissions using the next higher tier in §60.764; or conduct a surface emission monitoring demonstration using the procedures specified in §60.764(a)(6).

(B) If the landfill is permanently closed, a closure report must be submitted to the ~~Administrator~~ Department as provided for in §60.767(e).

(2) If the calculated NMOC emission rate is equal to or greater than 34 megagrams per year using Tier 1, 2, or 3 procedures, the owner or operator must either:

(i) Calculated *NMOC Emission Rate.* Submit a collection and control system design plan prepared by a professional engineer to the ~~Administrator~~ Department within 1 year as specified in §60.767(c); calculate NMOC emissions using the next higher tier in §60.764; or conduct a surface emission monitoring demonstration using the procedures specified in §60.764(a)(6). The collection and control system must meet the requirements in paragraphs (b)(2)(ii) and (iii) of this section.

(ii) *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 in accordance with paragraph (b)(2)(ii)(A) or (B) of this section, whichever is applicable. ~~within 30 months after:~~

(A) *For MSW landfills that commenced construction, reconstruction, or modification on or after July 17, 2014.* The collection and control system must be started up in accordance with paragraph (b)(2)(ii)(A)(*1*) or (*2*) of this section, whichever is applicable. ~~The first annual report in which the NMOC emission rate equals or exceeds 34 megagrams per year, unless Tier 2 or Tier 3 sampling demonstrates that the NMOC emission rate is less than 34 megagrams per year, as specified in §60.767(c)(4); or~~

(1) Within 30 months of the first annual report in which the NMOC emission rate equals or exceeds 34 megagrams per year, unless Tier 2 or Tier 3 sampling demonstrates that the NMOC emission rate is less than 34 megagrams per year, as specified in §60.767(c)(4) or

(2) Within 30 months of the most recent NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year based on Tier 2, if the Tier 4 surface emissions monitoring shows a surface methane emission concentration of 500 parts per million methane or greater as specified in §60.767(c)(4)(iii).

(B) *For all other subject MSW landfills.* As expeditiously as practicable but not later than January 8, 2018. ~~The most recent NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year based on Tier 2, if the Tier 4 surface emissions monitoring shows a surface methane emission concentration of 500 parts per million methane or greater as specified in §60.767(c)(4)(iii).~~

(C) An active collection system must:

(*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 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 5 years or more if active; or 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.

(D) A passive collection system must:

(*1*) Comply with the provisions specified in paragraphs (b)(2)(ii)(C)(*1*), (*2*), and (*3*) 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 must be installed as required under 40 CFR 258.40.

(iii) *Control system.* 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) A non-enclosed flare designed and operated in accordance with the parameters established in §60.18 except as noted in §60.764(e); or

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(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 must 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 §60.764(d). The performance test is not required for boilers and process heaters with design heat input capacities equal to or greater than 44 megawatts that burn landfill gas for compliance with this subpart.

(*1*) If a boiler or process heater is used as the control device, the landfill gas stream must be introduced into the flame zone.

(*2*) The control device must be operated within the parameter ranges established during the initial or most recent performance test. The operating parameters to be monitored are specified in §60.766;

(C) Route the collected gas to a treatment system that processes the collected gas for subsequent sale or beneficial use such as fuel for combustion, production of vehicle fuel, production of high-Btu gas for pipeline injection, or use as a raw material in a chemical manufacturing process. Venting of treated landfill gas to the ambient air is not allowed. If the treated landfill gas cannot be routed for subsequent sale or beneficial use, then the treated landfill gas must be controlled according to either paragraph (b)(2)(iii)(A) or (B) of this section.

(D) All emissions from any atmospheric vent from the gas treatment system are subject to the requirements of paragraph (b)(2)(iii)(A) or (B) of this section. For purposes of this subpart, atmospheric vents located on the condensate storage tank are not part of the treatment system and are exempt from the requirements of paragraph (b)(2)(iii)(A) or (B) of this section.

(iv) *Operation.* Operate the collection and control device installed to comply with this subpart in accordance with the provisions of §§60.763, 60.765 and 60.766.

(v) *Removal criteria.* The collection and control system may be capped, removed, or decommissioned if the following criteria are met:

(A) The landfill is a closed landfill (as defined in §60.761). A closure report must be submitted to the ~~Administrator~~ Department as provided in §60.767(e).

(B) The collection and control system has been in operation a minimum of 15 years or the landfill owner or operator demonstrates that the GCCS will be unable to operate for 15 years due to declining gas flow.

(C) Following the procedures specified in §60.764(b), the calculated NMOC emission rate at the landfill is less than 34 megagrams per year on three successive test dates. The test dates must 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 Clean Air Act, the owner or operator of an 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~~ 7 **DE Admin. Code** 1130, 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 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~~ 7 **DE Admin. Code** 1130, becomes subject to the requirements of ~~§70.5(a)(1)(i) or §71.5(a)(1)(i) of this chapter~~ paragraph 5.1.1 of 7 **DE Admin. Code** 1130, regardless of when the design capacity report is actually submitted, no later than:

(1) ~~November 28, 2016 for MSW landfills that commenced construction, modification, or reconstruction after July 17, 2014 but before August 29, 2016;~~ Ninety days after the date of commenced construction, modification, or reconstruction for MSW landfills that commenced construction, modification, or reconstruction on or after July 17, 2014 or

(2) ~~Ninety days after the date of commenced construction, modification, or reconstruction for MSW landfills that commence construction, modification, or reconstruction after August 29, 2016~~ January 8, 2018 for all other subject MSW landfills.

(d) When an MSW landfill subject to this subpart is closed as defined in this subpart, the owner or

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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.

§60.763 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 §60.762(b)(2) must:

(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 must record instances when positive pressure occurs in efforts to avoid a fire. These records must be submitted with the annual reports as provided in §60.767(g)(1);

(2) Use of a geomembrane or synthetic cover. The owner or operator must 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 must be approved by the ~~Administrator~~ Department as specified in §60.767(c);

(c) Operate each interior wellhead in the collection system with a landfill gas temperature less than 55 degrees Celsius (131 degrees Fahrenheit). The owner or operator may establish a higher operating temperature value at a particular well. A higher operating value demonstration must be submitted to the ~~Administrator~~ Department for approval and must include supporting data demonstrating that the elevated parameter neither causes fires nor significantly inhibits anaerobic decomposition by killing methanogens. The demonstration must satisfy both criteria in order to be approved (*i.e.*, neither causing fires nor killing methanogens is acceptable).

(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 must conduct surface testing using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in §60.765(d). The owner or operator must conduct surface testing around the perimeter of the collection area and along a pattern that traverses the landfill at no more than 30-meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover and all cover penetrations. Thus, the owner or operator must monitor any openings that are within an area of the landfill where waste has been placed and a gas collection system is required. The owner or operator may establish an alternative traversing pattern that ensures equivalent coverage. A surface monitoring design plan must 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 §60.762(b)(2)(iii). In the event the collection or control system is not operating, the gas mover system must be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere must be closed within 1 hour of the collection or control system not operating; and

(f) Operate the control 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 must be taken as specified in §60.765(a)(3) and (5) or §60.765(c). If

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corrective actions are taken, as specified in §60.765, the monitored exceedance is not a violation of the operational requirements in this section.

§60.764 Test methods and procedures.

(a)(1) *NMOC Emission Rate.* The landfill owner or operator must calculate the NMOC emission rate using either Equation 1 provided in paragraph (a)(1)(i) of this section or Equation 2 provided in paragraph (a)(1)(ii) of this section. Both Equation 1 and Equation 2 may be used if the actual year-to-year solid waste acceptance rate is known, as specified in paragraph (a)(1)(i) of this section, 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) of this section, for part of the life of the landfill. The values to be used in both Equation 1 and Equation 2 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 30-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.

(i)(A) Equation 1 must be used if the actual year-to-year solid waste acceptance rate is known.

$$M_{NMOC} = \sum_{i=1}^{n} 2\,k\,L_o M_i \left(e^{-kt_i}\right)\left(C_{NMOC}\right)\left(3.6\times10^{-9}\right) \qquad \text{(Eq. 1)}$$

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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.

(B) 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 documentation of the nature and amount of such wastes is maintained.

(ii)(A) Equation 2 must be used if the actual year-to-year solid waste acceptance rate is unknown.

$$M_{NMOC} = 2L_oR\left(e^{-kc}-e^{-kt}\right) C_{NMOC}(3.6 * 10^{-9}) \qquad \text{(Eq.2)}$$

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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 = 0 and e^{-kc} = 1.

3.6×10^{-9} = Conversion factor.

(B) 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 of R, if documentation of the nature and amount of such wastes is maintained.

(2) *Tier 1.* The owner or operator must compare the calculated NMOC mass emission rate to the standard of 34 megagrams per year.

(i) If the NMOC emission rate calculated in paragraph (a)(1) of this section is less than 34 megagrams per year, then the landfill owner or operator must submit an NMOC emission rate report according to §60.767(b), and must recalculate the NMOC mass emission rate annually as required under

§60.762(b).

(ii) If the calculated NMOC emission rate as calculated in paragraph (a)(1) of this section is equal to or greater than 34 megagrams per year, then the landfill owner must either:

(A) Submit a gas collection and control system design plan within 1 year as specified in §60.767(c) and install and operate a gas collection and control system within 30 months according to §60.762(b)(2)(ii) and (iii);

(B) Determine a site-specific NMOC concentration and recalculate the NMOC emission rate using the Tier 2 procedures provided in paragraph (a)(3) of this section; or

(C) Determine a site-specific methane generation rate constant and recalculate the NMOC emission rate using the Tier 3 procedures provided in paragraph (a)(4) of this section.

(3) *Tier 2.* The landfill owner or operator must determine the site-specific NMOC concentration using the following sampling procedure. The landfill owner or operator must install at least two sample probes per hectare, evenly distributed over the 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 probes should be evenly distributed across the sample area. The sample probes should be located to avoid known areas of nondegradable solid waste. The owner or operator must 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. 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 alternative 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 more than the required number of samples are taken, all samples must be used in the analysis. The landfill owner or operator must divide the NMOC concentration from Method 25 or 25C of appendix A of this part by six to convert from C_{NMOC} as carbon to C_{NMOC} 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 as the two sampling probe per hectare requirement. For active collection systems, samples may be collected from the common header pipe. The sample location on the common header pipe must be before any gas moving, condensate removal, or treatment system equipment. For active collection systems, a minimum of three samples must be collected from the header pipe.

(i) Within 60 days after the date of completing each performance test (as defined in §60.8), the owner or operator must submit the results according to §60.767(i)(1).

(ii) The landfill owner or operator must recalculate the NMOC mass emission rate using Equation 1 or Equation 2 provided in paragraph (a)(1)(i) or (a)(1)(ii) of this section and using the average site-specific NMOC concentration from the collected samples instead of the default value provided in paragraph (a)(1) of this section.

(iii) If the resulting NMOC mass emission rate is less than 34 megagrams per year, then the owner or operator must submit a periodic estimate of NMOC emissions in an NMOC emission rate report according to §60.767(b)(1), and must recalculate the NMOC mass emission rate annually as required under §60.762(b). The site-specific NMOC concentration must be retested every 5 years using the methods specified in this section.

(iv) If the NMOC mass emission rate as calculated using the Tier 2 site-specific NMOC concentration is equal to or greater than 34 megagrams per year, the landfill owner or operator must either:

(A) Submit a gas collection and control system design plan within 1 year as specified in §60.767(c) and install and operate a gas collection and control system within 30 months according to §60.762(b)(2)(ii) and (iii);

(B) Determine a site-specific methane generation rate constant and recalculate the NMOC emission rate using the site-specific methane generation rate using the Tier 3 procedures specified in paragraph (a)(4) of this section; or

(C) Conduct a surface emission monitoring demonstration using the Tier 4 procedures specified in

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paragraph (a)(6) of this section.

(4) *Tier 3.* The site-specific methane generation rate constant must be determined using the procedures provided in Method 2E of appendix A of this part. The landfill owner or operator must estimate the NMOC mass emission rate using Equation 1 or Equation 2 in paragraph (a)(1)(i) or (ii) of this section and using a site-specific methane generation rate constant, 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 must compare the resulting NMOC mass emission rate to the standard of 34 megagrams per year.

(i) If the NMOC mass emission rate as calculated using the Tier 2 site-specific NMOC concentration and Tier 3 site-specific methane generation rate is equal to or greater than 34 megagrams per year, the owner or operator must either:

(A) Submit a gas collection and control system design plan within 1 year as specified in §60.767(c) and install and operate a gas collection and control system within 30 months according to §60.762(b)(2)(ii) and (iii); or

(B) Conduct a surface emission monitoring demonstration using the Tier 4 procedures specified in paragraph (a)(6) of this section.

(ii) If the NMOC mass emission rate is less than 34 megagrams per year, then the owner or operator must recalculate the NMOC mass emission rate annually using Equation 1 or Equation 2 in paragraph (a)(1) of this section and using the site-specific Tier 2 NMOC concentration and Tier 3 methane generation rate constant and submit a periodic NMOC emission rate report as provided in §60.767(b)(1). The calculation of the methane generation rate constant is performed only once, and the value obtained from this test must be used in all subsequent annual NMOC emission rate calculations.

(5) *Other methods.* The owner or operator may use other methods to determine the NMOC concentration or a site-specific methane generation rate constant as an alternative to the methods required in paragraphs (a)(3) and (4) of this section if the method has been approved by the Administrator.

(6) *Tier 4.* The landfill owner or operator must demonstrate that surface methane emissions are below 500 parts per million. Surface emission monitoring must be conducted on a quarterly basis using the following procedures. Tier 4 is allowed only if the landfill owner or operator can demonstrate that NMOC emissions are greater than or equal to 34 Mg/yr but less than 50 Mg/yr using Tier 1 or Tier 2. If both Tier 1 and Tier 2 indicate NMOC emissions are 50 Mg/yr or greater, then Tier 4 cannot be used. In addition, the landfill must meet the criteria in paragraph (a)(6)(viii) of this section.

(i) The owner or operator must measure surface concentrations of methane along the entire perimeter of the landfill and along a pattern that traverses the landfill at no more than 30-meter intervals using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in §60.765(d).

(ii) The background concentration must be determined by moving the probe inlet upwind and downwind at least 30 meters from the waste mass boundary of the landfill.

(iii) Surface emission monitoring must be performed in accordance with section 8.3.1 of Method 21 of appendix A of this part, except that the probe inlet must be placed no more than 5 centimeters above the landfill surface; the constant measurement of distance above the surface should be based on a mechanical device such as with a wheel on a pole, except as described in paragraph (a)(6)(iii)(A) of this section.

(A) The owner or operator must use a wind barrier, similar to a funnel, when onsite average wind speed exceeds 4 miles per hour or 2 meters per second or gust exceeding 10 miles per hour. Average on-site wind speed must also be determined in an open area at 5-minute intervals using an on-site anemometer with a continuous recorder and data logger for the entire duration of the monitoring event. The wind barrier must surround the SEM monitor, and must be placed on the ground, to ensure wind turbulence is blocked. SEM cannot be conducted if average wind speed exceeds 25 miles per hour.

(B) Landfill surface areas where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover, and all cover penetrations must also be monitored using a device meeting the specifications provided in §60.765(d).

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(iv) Each owner or operator seeking to comply with the Tier 4 provisions in paragraph (a)(6) of this section must maintain records of surface emission monitoring as provided in §60.768(g) and submit a Tier 4 surface emissions report as provided in §60.767(c)(4)(iii).

(v) If there is any measured concentration of methane of 500 parts per million or greater from the surface of the landfill, the owner or operator must submit a gas collection and control system design plan within 1 year of the first measured concentration of methane of 500 parts per million or greater from the surface of the landfill according to §60.767(c) and install and operate a gas collection and control system according to §60.762(b)(2)(ii) and (iii) within 30 months of the most recent NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year based on Tier 2.

(vi) If after four consecutive quarterly monitoring periods at a landfill, other than a closed landfill, there is no measured concentration of methane of 500 parts per million or greater from the surface of the landfill, the owner or operator must continue quarterly surface emission monitoring using the methods specified in this section.

(vii) If after four consecutive quarterly monitoring periods at a closed landfill there is no measured concentration of methane of 500 parts per million or greater from the surface of the landfill, the owner or operator must conduct annual surface emission monitoring using the methods specified in this section.

(viii) If a landfill has installed and operates a collection and control system that is not required by this subpart, then the collection and control system must meet the following criteria:

(A) The gas collection and control system must have operated for 6,570 out of 8,760 hours preceding the Tier 4 surface emissions monitoring demonstration.

(B) During the Tier 4 surface emissions monitoring demonstration, the gas collection and control system must operate as it normally would to collect and control as much landfill gas as possible.

(b) After the installation and startup of a collection and control system in compliance with this subpart, the owner or operator must calculate the NMOC emission rate for purposes of determining when the system can be capped, removed or decommissioned as provided in §60.762(b)(2)(v), using Equation 3:

$$M_{NMOC} = 1.89 \times 10^{-3} Q_{LFG} C_{NMOC} \qquad \text{(Eq. 3)}$$

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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}, must be determined by measuring the total landfill gas flow rate at the common header pipe that leads to the control system using a gas flow measuring device calibrated according to the provisions of section 10 of Method 2E of appendix A of this part.

(2) The average NMOC concentration, C_{NMOC}, must 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 25 or Method 25C. The sample location on the common header pipe must be before any condensate removal or other gas refining units. The landfill owner or operator must divide the NMOC concentration from Method 25 or 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~~ Department.

(i) Within 60 days after the date of completing each performance test (as defined in §60.8), the owner or operator must submit the results of the performance test, including any associated fuel analyses, according to §60.767(i)(1).

(ii) [Reserved]

(c) When calculating emissions for Prevention of Significant Deterioration purposes, the owner or operator of each MSW landfill subject to the provisions of this subpart must estimate the NMOC emission rate for comparison to the Prevention of Significant Deterioration major source and significance levels in §§51.166 or 52.21 of this chapter using Compilation of Air Pollutant Emission Factors, Volume I:

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Stationary Point and Area Sources (AP-42) or other approved measurement procedures.

(d) For the performance test required in §60.762(b)(2)(iii)(B), Method 25 or 25C (Method 25C may be used at the inlet only) of appendix A of this part must be used to determine compliance with the 98 weight-percent efficiency or the 20 parts per million by volume outlet concentration level, unless another method to demonstrate compliance has been approved by the ~~Administrator~~ Department as provided by §60.767(c)(2). Method 3, 3A, or 3C must 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. Method 18 may be used in conjunction with Method 25A on a limited basis (compound specific, *e.g.,* methane) or Method 3C may be used to determine methane. The methane as carbon should be subtracted from the Method 25A total hydrocarbon value as carbon to give NMOC concentration as carbon. The landowner or operator must divide the NMOC concentration as carbon by 6 to convert from the CNMOC as carbon to CNMOC as hexane. Equation 4 must be used to calculate efficiency:

$$\text{Control Efficiency} = (NMOC_{in} - NMOC_{out})/(NMOC_{in}) \qquad \text{(Eq. 4)}$$

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Where:

$NMOC_{in}$ = Mass of NMOC entering control device.

$NMOC_{out}$ = Mass of NMOC exiting control device.

(e) For the performance test required in §60.762(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 components, 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).

(1) Within 60 days after the date of completing each performance test (as defined in §60.8), the owner or operator must submit the results of the performance tests, including any associated fuel analyses, required by §60.764(b) or (d) according to §60.767(i)(1).

(2) [Reserved]

§60.765 Compliance provisions.

(a) Except as provided in §60.767(c)(2), the specified methods in paragraphs (a)(1) through (6) of this section must be used to determine whether the gas collection system is in compliance with §60.762(b)(2)(ii).

(1) For the purposes of calculating the maximum expected gas generation flow rate from the landfill to determine compliance with §60.762(b)(2)(ii)(C)(*1*), either Equation 5 or Equation 6 must be used. The methane generation rate constant (k) and methane generation potential (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~~ Department. If k has been determined as specified in §60.764(a)(4), the value of k determined from the test must be used. A value of no more than 15 years must 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:

$$Q_m = 2L_oR\,(e^{-kc} - e^{-kt}) \qquad \text{(Eq. 5)}$$

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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

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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:

$$Q_M = \sum_{i=1}^{n} 2kL_0M_i(e^{-kt_i}) \qquad \text{(Eq. 6)}$$

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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, Equation 5 or Equation 6 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 Equation 5 or Equation 6 in paragraphs (a)(1)(i) or (ii) of this section or other methods must 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 §60.762(b)(2)(ii)(C)(*2*), the owner or operator must design a system of vertical wells, horizontal collectors, or other collection devices, satisfactory to the ~~Administrator~~ Department, 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 §60.762(b)(2)(ii)(C)(*3*), the owner or operator must measure gauge pressure in the gas collection header applied to each individual well, monthly. If a positive pressure exists, action must be initiated to correct the exceedance within 5 calendar days, except for the three conditions allowed under §60.763(b). Any attempted corrective measure must not cause exceedances of other operational or performance standards.

(i) If negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement of positive pressure, the owner or operator must conduct a root cause analysis and correct the exceedance as soon as practicable, but no later than 60 days after positive pressure was first measured. The owner or operator must keep records according to §60.768(e)(3).

(ii) If corrective actions cannot be fully implemented within 60 days following the positive pressure measurement for which the root cause analysis was required, the owner or operator must also conduct a corrective action analysis and develop an implementation schedule to complete the corrective action(s) as soon as practicable, but no more than 120 days following the positive pressure measurement. The owner or operator must submit the items listed in §60.767(g)(7) as part of the next annual report. The owner or operator must keep records according to §60.768(e)(4).

(iii) If corrective action is expected to take longer than 120 days to complete after the initial exceedance, the owner or operator must submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the ~~Administrator~~ Department, according to §60.767(g)(7) and §60.767(j). The owner or operator must keep records according to §60.768(e)(5).

(4) [Reserved]

(5) For the purpose of identifying whether excess air infiltration into the landfill is occurring, the owner or operator must monitor each well monthly for temperature as provided in §60.763(c). If a well exceeds the operating parameter for temperature, action must be initiated to correct the exceedance within 5 calendar days. Any attempted corrective measure must not cause exceedances of other operational or performance standards.

(i) If a landfill gas temperature less than 55 degrees Celsius (131 degrees Fahrenheit) cannot be achieved within 15 calendar days of the first measurement of landfill gas temperature greater than 55 degrees Celsius (131 degrees Fahrenheit), the owner or operator must conduct a root cause analysis and

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correct the exceedance as soon as practicable, but no later than 60 days after a landfill gas temperature greater than 55 degrees Celsius (131 degrees Fahrenheit) was first measured. The owner or operator must keep records according to §60.768(e)(3).

(ii) If corrective actions cannot be fully implemented within 60 days following the positive pressure measurement for which the root cause analysis was required, the owner or operator must also conduct a corrective action analysis and develop an implementation schedule to complete the corrective action(s) as soon as practicable, but no more than 120 days following the measurement of landfill gas temperature greater than 55 degrees Celsius (131 degrees Fahrenheit). The owner or operator must submit the items listed in §60.767(g)(7) as part of the next annual report. The owner or operator must keep records according to §60.768(e)(4).

(iii) If corrective action is expected to take longer than 120 days to complete after the initial exceedance, the owner or operator must submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the ~~Administrator~~ Department, according to §60.767(g)(7) and §60.767(j). The owner or operator must keep records according to §60.768(e)(5).

(6) An owner or operator seeking to demonstrate compliance with §60.762(b)(2)(ii)(C)(*4*) through the use of a collection system not conforming to the specifications provided in §60.769 must provide information satisfactory to the ~~Administrator~~ Department as specified in §60.767(c)(3) demonstrating that off-site migration is being controlled.

(b) For purposes of compliance with §60.763(a), each owner or operator of a controlled landfill must place each well or design component as specified in the approved design plan as provided in §60.767(c). Each well must be installed no later than 60 days after the date on which the initial solid waste has been in place for a period of:

(1) Five (5) years or more if active; or

(2) Two (2) years or more if closed or at final grade.

(c) The following procedures must be used for compliance with the surface methane operational standard as provided in §60.763(d).

(1) After installation and startup of the gas collection system, the owner or operator must 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 must 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 must be performed in accordance with section 8.3.1 of Method 21 of appendix A of this part, except that the probe inlet must be placed within 5 to 10 centimeters of the ground. Monitoring must be performed during typical meteorological conditions.

(4) Any reading of 500 parts per million or more above background at any location must be recorded as a monitored exceedance and the actions specified in paragraphs (c)(4)(i) through (v) of this section must be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements of §60.763(d).

(i) The location of each monitored exceedance must be marked and the location and concentration recorded.

(ii) Cover maintenance or adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of each exceedance must be made and the location must 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 must be taken and the location must 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 must be taken, and no further monitoring of that location is required until the action specified in paragraph (c)(4)(v) of this section 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

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section must be re-monitored 1 month from the initial exceedance. If the 1-month re-monitoring 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 re-monitoring shows an exceedance, the actions specified in paragraph (c)(4)(iii) or (v) of this section must 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 must 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~~ Department for approval.

(5) The owner or operator must 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 or §60.764(a)(6) must comply with the following instrumentation specifications and procedures for surface emission monitoring devices:

(1) The portable analyzer must meet the instrument specifications provided in section 6 of Method 21 of appendix A of this part, except that "methane" replaces all references to "VOC".

(2) The calibration gas must be methane, diluted to a nominal concentration of 500 parts per million in air.

(3) To meet the performance evaluation requirements in section 8.1 of Method 21 of appendix A of this part, the instrument evaluation procedures of section 8.1 of Method 21 of appendix A of this part must be used.

(4) The calibration procedures provided in sections 8 and 10 of Method 21 of appendix A of this part must be followed immediately before commencing a surface monitoring survey.

(e) The provisions of this subpart apply at all times, including periods of startup, shutdown or malfunction. During periods of startup, shutdown, and malfunction, you must comply with the work practice specified in §60.763(e) in lieu of the compliance provisions in §60.765.

§60.766 Monitoring of operations.

Except as provided in §60.767(c)(2):

(a) Each owner or operator seeking to comply with §60.762(b)(2)(ii)(C) for an active gas collection system must 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 §60.765(a)(3); and

(2) Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as follows:

(i) The nitrogen level must be determined using Method 3C, unless an alternative test method is established as allowed by §60.767(c)(2).

(ii) Unless an alternative test method is established as allowed by §60.767(c)(2), the oxygen level must be determined by an oxygen meter using Method 3A, 3C, or ASTM D6522-11 (incorporated by reference, see §60.17). Determine the oxygen level by an oxygen meter using Method 3A, 3C, or ASTM D6522-11 (if sample location is prior to combustion) except that:

(A) The span must be set between 10 and 12 percent oxygen;

(B) A data recorder is not required;

(C) Only two calibration gases are required, a zero and span;

(D) A calibration error check is not required;

(E) The allowable sample bias, zero drift, and calibration drift are ±10 percent.

(iii) A portable gas composition analyzer may be used to monitor the oxygen levels provided:

(A) The analyzer is calibrated; and

(B) The analyzer meets all quality assurance and quality control requirements for Method 3A or ASTM D6522-11 (incorporated by reference, see §60.17).

(3) Monitor temperature of the landfill gas on a monthly basis as provided in §60.765(a)(5). The

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temperature measuring device must be calibrated annually using the procedure in 40 CFR part 60, appendix A-1, Method 2, Section 10.3.

(b) Each owner or operator seeking to comply with §60.762(b)(2)(iii) using an enclosed combustor must 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 a minimum accuracy of ±1 percent of the temperature being measured expressed in degrees Celsius or ±0.5 degrees Celsius, whichever is greater. A temperature monitoring device is not required for boilers or process heaters with design heat input capacity equal to or greater than 44 megawatts.

(2) A device that records flow to the control device and bypass of the control device (if applicable). The owner or operator must:

(i) Install, calibrate, and maintain a gas flow rate measuring device that must record the flow to the control device at least every 15 minutes; and

(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 must 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 §60.762(b)(2)(iii) using a non-enclosed flare must 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 the flare and bypass of the flare (if applicable). The owner or operator must:

(i) Install, calibrate, and maintain a gas flow rate measuring device that records the flow to the control device at least every 15 minutes; and

(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 must 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 §60.762(b)(2)(iii) using a device other than a non-enclosed flare or an enclosed combustor or a treatment system must provide information satisfactory to the ~~Administrator~~ Department as provided in §60.767(c)(2) describing the operation of the control device, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The ~~Administrator~~ Department must review the information and either approve it, or request that additional information be submitted. The ~~Administrator~~ Department may specify additional appropriate monitoring procedures.

(e) Each owner or operator seeking to install a collection system that does not meet the specifications in §60.769 or seeking to monitor alternative parameters to those required by §§60.763 through 60.766 must provide information satisfactory to the ~~Administrator~~ Department as provided in §60.767(c)(2) and (3) describing the design and operation of the collection system, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The ~~Administrator~~ Department may specify additional appropriate monitoring procedures.

(f) Each owner or operator seeking to demonstrate compliance with the 500 parts per million surface methane operational standard in §60.763(d) must monitor surface concentrations of methane according to the procedures in §60.765(c) and the instrument specifications in §60.765(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.

(g) Each owner or operator seeking to demonstrate compliance with §60.762(b)(2)(iii) using a landfill gas treatment system must maintain and operate all monitoring systems associated with the treatment system in accordance with the site-specific treatment system monitoring plan required in §60.768(b)(5)(ii)

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and must calibrate, maintain, and operate according to the manufacturer's specifications a device that records flow to the treatment system and bypass of the treatment system (if applicable). The owner or operator must:

(1) Install, calibrate, and maintain a gas flow rate measuring device that records the flow to the treatment system at least every 15 minutes; and

(2) 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 must 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.

(h) The monitoring requirements of paragraphs (b), (c) (d) and (g) of this section apply at all times the affected source is operating, except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. You are required to complete monitoring system repairs in response to monitoring system malfunctions and to return the monitoring system to operation as expeditiously as practicable.

§60.767 Reporting requirements.

(a) *Design capacity report.* Each owner or operator subject to the requirements of this subpart must submit an initial design capacity report to the ~~Administrator~~ Department.

(1) *Submission.* The initial design capacity report fulfills the requirements of the notification of the date construction is commenced as required by §60.7(a)(1) and must be submitted no later than:

(i) ~~November 28, 2016, for landfills that commenced construction, modification, or reconstruction after July 17, 2014 but before August 29, 2016;~~ Ninety days after the date of commenced construction, modification, or reconstruction for MSW landfills that commenced construction, modification, or reconstruction on or after July 17, 2014 or

(ii) ~~Ninety days after the date of commenced construction, modification, or reconstruction for landfills that commence construction, modification, or reconstruction after August 29, 2016.~~ The date specified in a State construction or operating permit, if applicable, or January 8, 2018, whichever is earlier, for all other subject MSW landfills.

(2) *Initial design capacity report.* The initial design capacity report must 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 must be calculated using good engineering practices. The calculations must be provided, along with the relevant parameters as part of the report. The landfill may calculate design capacity in either megagrams or cubic meters for comparison with the exemption values. 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. Any density conversions must be documented and submitted with the design capacity report. The ~~state, tribal, local agency or Administrator~~ Department may request other reasonable information as may be necessary to verify the maximum design capacity of the landfill.

(3) *Amended design capacity report.* An amended design capacity report must be submitted to the ~~Administrator~~ Department 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 meet or exceed 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 §60.768(f).

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(b) *NMOC emission rate report.* Each owner or operator subject to the requirements of this subpart must submit an NMOC emission rate report following the procedure specified in paragraph (i)(2) of this section to the ~~Administrator~~ Department initially and annually thereafter, except as provided for in paragraph (b)(1)(ii) of this section. The ~~Administrator~~ Department may request such additional information as may be necessary to verify the reported NMOC emission rate.

(1) The NMOC emission rate report must contain an annual or 5-year estimate of the NMOC emission rate calculated using the formula and procedures provided in §60.764(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 must be submitted no later than indicated in paragraphs (b)(1)(i)(A) and (B) of this section. Subsequent NMOC emission rate reports must be submitted annually thereafter, except as provided for in paragraph (b)(1)(ii) of this section.

(A) ~~November 28, 2016, for landfills that commenced construction, modification, or reconstruction after July 17, 2014, but before August 29, 2016,~~ Ninety days after the date of commenced construction, modification, or reconstruction for MSW landfills that commenced construction, modification, or reconstruction on or after July 17, 2014 or

(B) ~~Ninety days after the date of commenced construction, modification, or reconstruction for landfills that commence construction, modification, or reconstruction after August 29, 2016~~ January 8, 2018 for all other subject MSW landfills.

(ii) If the estimated NMOC emission rate as reported in the annual report to the ~~Administrator~~ Department is less than 34 megagrams per year in each of the next 5 consecutive years, the owner or operator may elect to submit, following the procedure specified in paragraph (i)(2) of this section, an estimate of the NMOC emission rate for the next 5-year period in lieu of the annual report. This estimate must 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 must be provided to the ~~Administrator~~ Department. This estimate must 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 must be submitted to the ~~Administrator~~ Department. The revised estimate must 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 must 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 to submit an NMOC emission rate report, after installing a collection and control system that complies with §60.762(b)(2), during such time as the collection and control system is in operation and in compliance with §§60.763 and 60.765.

(c) *Collection and control system design plan.* Each owner or operator subject to the provisions of §60.762(b)(2) must submit a collection and control system design plan to the ~~Administrator~~ Department for approval according to the schedule in paragraph (c)(4) of this section. The collection and control system design plan must be prepared and approved by a professional engineer and must meet the following requirements:

(1) The collection and control system as described in the design plan must meet the design requirements in §60.762(b)(2).

(2) The collection and control system design plan must include any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions of §§60.763 through 60.768 proposed by the owner or operator.

(3) The collection and control system design plan must either conform with specifications for active collection systems in §60.769 or include a demonstration to the ~~Administrator~~ Department's satisfaction of the sufficiency of the alternative provisions to §60.769.

(4) 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~~ Department for approval 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:

(i) If the owner or operator elects to recalculate the NMOC emission rate after Tier 2 NMOC sampling and analysis as provided in §60.764(a)(3) and the resulting rate is less than 34 megagrams per year, annual periodic reporting must be resumed, using the Tier 2 determined site-specific NMOC concentration, until the calculated emission rate is equal to or greater than 34 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, must be submitted, following the procedures in paragraph (i)(2) of this section, within 180 days of the first calculated exceedance of 34 megagrams per year.

(ii) 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 §60.764(a)(4), and the resulting NMOC emission rate is less than 34 Mg/yr, annual periodic reporting must be resumed. The resulting site-specific methane generation rate constant k must 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 §60.764(a)(4) and the resulting site-specific methane generation rate constant k must be submitted, following the procedure specified in paragraph (i)(2) of this section, to the ~~Administrator~~ Department within 1 year of the first calculated emission rate equaling or exceeding 34 megagrams per year.

(iii) If the owner or operator elects to demonstrate that site-specific surface methane emissions are below 500 parts per million methane, based on the provisions of §60.764(a)(6), then the owner or operator must submit annually a Tier 4 surface emissions report as specified in this paragraph following the procedure specified in paragraph (i)(2) of this section until a surface emissions readings of 500 parts per million methane or greater is found. If the Tier 4 surface emissions report shows no surface emissions readings of 500 parts per million methane or greater for four consecutive quarters at a closed landfill, then the landfill owner or operator may reduce Tier 4 monitoring from a quarterly to an annual frequency. The ~~Administrator~~ Department may request such additional information as may be necessary to verify the reported instantaneous surface emission readings. The Tier 4 surface emissions report must clearly identify the location, date and time (to nearest second), average wind speeds including wind gusts, and reading (in parts per million) of any value 500 parts per million methane or greater, other than non-repeatable, momentary readings. For location, you must determine the latitude and longitude coordinates using an instrument with an accuracy of at least 4 meters. The coordinates must be in decimal degrees with at least five decimal places. The Tier 4 surface emission report must also include the results of the most recent Tier 1 and Tier 2 results in order to verify that the landfill does not exceed 50 Mg/yr of NMOC.

(A) The initial Tier 4 surface emissions report must be submitted annually, starting within 30 days of completing the fourth quarter of Tier 4 surface emissions monitoring that demonstrates that site-specific surface methane emissions are below 500 parts per million methane, and following the procedure specified in paragraph (i)(2) of this section.

(B) The Tier 4 surface emissions report must be submitted within 1 year of the first measured surface exceedance of 500 parts per million methane, following the procedure specified in paragraph (i)(2) of this section.

(5) The landfill owner or operator must notify the ~~Administrator~~ Department that the design plan is completed and submit a copy of the plan's signature page. The ~~Administrator~~ Department has 90 days to decide whether the design plan should be submitted for review. If the ~~Administrator~~ Department chooses to review the plan, the approval process continues as described in paragraph (c)(6) of this section. However, if the ~~Administrator~~ Department indicates that submission is not required or does not respond within 90 days, the landfill owner or operator can continue to implement the plan with the recognition that the owner or operator is proceeding at their own risk. In the event that the design plan is required to be modified to obtain approval, the owner or operator must take any steps necessary to conform any prior actions to the approved design plan and any failure to do so could result in an enforcement action.

(6) Upon receipt of an initial or revised design plan, the ~~Administrator~~ Department must review the information submitted under paragraphs (c)(1) through (3) 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. If the ~~Administrator~~ Department does not approve or disapprove the design plan, or does not request that

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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.

(7) If the owner or operator chooses to demonstrate compliance with the emission control requirements of this subpart using a treatment system as defined in this subpart, then the owner or operator must prepare a site-specific treatment system monitoring plan as specified in §60.768(b)(5).

(d) *Revised design plan.* The owner or operator who has already been required to submit a design plan under paragraph (c) of this section must submit a revised design plan to the ~~Administrator~~ Department for approval as follows:

(1) At least 90 days before expanding operations to an area not covered by the previously approved design plan.

(2) Prior to installing or expanding the gas collection system in a way that is not consistent with the design plan that was submitted to the ~~Administrator~~ Department according to paragraph (c) of this section.

(e) *Closure report.* Each owner or operator of a controlled landfill must submit a closure report to the ~~Administrator~~ Department within 30 days of waste acceptance cessation. The ~~Administrator~~ Department 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~~ Department, no additional wastes may be placed into the landfill without filing a notification of modification as described under §60.7(a)(4).

(f) *Equipment removal report.* Each owner or operator of a controlled landfill must submit an equipment removal report to the ~~Administrator~~ Department 30 days prior to removal or cessation of operation of the control equipment.

(1) The equipment removal report must contain all of the following items:

(i) A copy of the closure report submitted in accordance with paragraph (e) of this section;

(ii) A copy of the initial performance test report demonstrating that the 15-year minimum control period has expired, unless the report of the results of the performance test has been submitted to the EPA via the EPA's CDX, or information that demonstrates that the GCCS will be unable to operate for 15 years due to declining gas flows. In the equipment removal report, the process unit(s) tested, the pollutant(s) tested, and the date that such performance test was conducted may be submitted in lieu of the performance test report if the report has been previously submitted to the EPA's CDX; and

(iii) Dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 34 megagrams or greater of NMOC per year, unless the NMOC emission rate reports have been submitted to the EPA via the EPA's CDX. If the NMOC emission rate reports have been previously submitted to the EPA's CDX, a statement that the NMOC emission rate reports have been submitted electronically and the dates that the reports were submitted to the EPA's CDX may be submitted in the equipment removal report in lieu of the NMOC emission rate reports.

(2) The ~~Administrator~~ Department may request such additional information as may be necessary to verify that all of the conditions for removal in §60.762(b)(2)(v) have been met.

(g) *Annual report.* The owner or operator of a landfill seeking to comply with §60.762(b)(2) using an active collection system designed in accordance with §60.762(b)(2)(ii) must submit to the ~~Administrator~~ Department, following the procedure specified in paragraph (i)(2) of this section, annual reports of the recorded information in paragraphs (g)(1) through (7) of this section. The initial annual report must be submitted within 180 days of installation and startup of the collection and control system, and must include the initial performance test report required under §60.8, as applicable, unless the report of the results of the performance test has been submitted to the EPA via the EPA's CDX. In the initial annual report, the process unit(s) tested, the pollutant(s) tested, and the date that such performance test was conducted may be submitted in lieu of the performance test report if the report has been previously submitted to the EPA's CDX. For enclosed combustion devices and flares, reportable exceedances are defined under §60.768(c).

(1) Value and length of time for exceedance of applicable parameters monitored under §60.766(a), (b), (c), (d), and (g).

(2) Description and duration of all periods when the gas stream was diverted from the control device

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or treatment system through a bypass line or the indication of bypass flow as specified under §60.766.

(3) Description and duration of all periods when the control device or treatment system was not operating and length of time the control device or treatment system was not operating.

(4) All periods when the collection system was not operating.

(5) The location of each exceedance of the 500 parts per million methane concentration as provided in §60.763(d) and the concentration recorded at each location for which an exceedance was recorded in the previous month. For location, you must determine the latitude and longitude coordinates using an instrument with an accuracy of at least 4 meters. The coordinates must be in decimal degrees with at least five decimal places.

(6) The date of installation and the location of each well or collection system expansion added pursuant to §60.765(a)(3), (a)(5), (b), and (c)(4).

(7) For any corrective action analysis for which corrective actions are required in §60.765(a)(3) or (5) and that take more than 60 days to correct the exceedance, the root cause analysis conducted, including a description of the recommended corrective action(s), the date for corrective action(s) already completed following the positive pressure reading, and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates.

(h) *Initial performance test report.* Each owner or operator seeking to comply with §60.762(b)(2)(iii) must 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.

(i) *Electronic reporting.* The owner or operator must submit reports electronically according to paragraphs (i)(1) and (2) of this section.

(1) Within 60 days after the date of completing each performance test (as defined in §60.8), the owner or operator must submit the results of each performance test according to the following procedures:

(i) For data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT Web site (*https://www3.epa.gov/ttn/chief/ert/ert_info.html*) at the time of the test, you must submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (*https://cdx.epa.gov/*). Performance test data must be submitted in a file format generated through the use of the EPA's ERT or an alternative file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT Web site, once the XML schema is available. If you claim that some of the performance test information being submitted is confidential business information (CBI), you must submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT Web site, including information claimed to be CBI, on a compact disc, flash drive or other commonly used electronic storage media to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's

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CDX as described earlier in this paragraph.

(ii) For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT Web site at the time of the test, you must submit the results of the performance test to the ~~Administrator~~ Department ~~at the appropriate address listed in §60.4~~.

(2) Each owner or operator required to submit reports following the procedure specified in this paragraph must submit reports to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX.) The owner or operator must use the appropriate electronic report in CEDRI for this subpart or an alternate electronic file format consistent with the XML schema listed on the CEDRI Web site (*https://www3.epa.gov/ttn/chief/cedri/index.html*). If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the owner or operator must submit the report to the ~~Administrator~~ Department at the appropriate address listed in §60.4. Once the form has been available in CEDRI for 90 calendar days, the owner or operator must begin submitting all subsequent reports via CEDRI. The reports must be submitted by the deadlines specified in this subpart, regardless of the method in which the reports are submitted.

(j) *Corrective action and the corresponding timeline.* The owner or operator must submit according to paragraphs (j)(1) and (j)(2) of this section.

(1) For corrective action that is required according to §60.765(a)(3)(iii) or (a)(5)(iii) and is expected to take longer than 120 days after the initial exceedance to complete, you must submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the ~~Administrator~~ Department as soon as practicable but no later than 75 days after the first measurement of positive pressure or temperature monitoring value of 55 degrees Celsius (131 degrees Fahrenheit). The ~~Administrator~~ Department must approve the plan for corrective action and the corresponding timeline.

(2) For corrective action that is required according to §60.765(a)(3)(iii) or (a)(5)(iii) and is not completed within 60 days after the initial exceedance, you must submit a notification to the ~~Administrator~~ Department as soon as practicable but no later than 75 days after the first measurement of positive pressure or temperature exceedance.

(k) *Liquids addition.* The owner or operator of an affected landfill with a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters that has employed leachate recirculation or added liquids based on a Research, Development, and Demonstration permit (issued through Resource Conservation and Recovery Act, subtitle D, part 258) within the last 10 years must submit to the ~~Administrator~~ Department, annually, following the procedure specified in paragraph (i)(2) of this section, the following information:

(1) Volume of leachate recirculated (gallons per year) and the reported basis of those estimates (records or engineering estimates).

(2) Total volume of all other liquids added (gallons per year) and the reported basis of those estimates (records or engineering estimates).

(3) Surface area (acres) over which the leachate is recirculated (or otherwise applied).

(4) Surface area (acres) over which any other liquids are applied.

(5) The total waste disposed (megagrams) in the areas with recirculated leachate and/or added liquids based on on-site records to the extent data are available, or engineering estimates and the reported basis of those estimates.

(6) The annual waste acceptance rates (megagrams per year) in the areas with recirculated leachate and/or added liquids, based on on-site records to the extent data are available, or engineering estimates.

(7) The initial report must contain items in paragraph (k)(1) through (6) of this section per year for the initial annual reporting period as well as for each of the previous 10 years, to the extent historical data are available in on-site records, and the report must be submitted no later than~~:~~ thirteen (13) months after the date of commenced construction, modification, or reconstruction for landfills that commenced construction, modification, or reconstruction on or after July 17, 2014 containing data for the first 12 months after August 29, 2016.

(i) ~~September 27, 2017, for landfills that commenced construction, modification, or reconstruction after July 17, 2014 but before August 29, 2016 containing data for the first 12 months after August 29,~~

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~~2016; or~~ [Reserved].

(ii) ~~Thirteen (13) months after the date of commenced construction, modification, or reconstruction for landfills that commence construction, modification, or reconstruction after August 29, 2016 containing data for the first 12 months after August 29, 2016~~ [Reserved].

(8) Subsequent annual reports must contain items in paragraph (k)(1) through (6) of this section for the 365-day period following the 365-day period included in the previous annual report, and the report must be submitted no later than 365 days after the date the previous report was submitted.

(9) Landfills may cease annual reporting of items in paragraphs (k)(1) through (7) of this section once they have submitted the closure report in paragraph (e) of this section.

(l) *Tier 4 notification.* (1) The owner or operator of an affected landfill with a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters must provide a notification of the date(s) upon which it intends to demonstrate site-specific surface methane emissions are below 500 parts per million methane, based on the Tier 4 provisions of §60.764(a)(6). The landfill must also include a description of the wind barrier to be used during the SEM in the notification. Notification must be postmarked not less than 30 days prior to such date.

(2) If there is a delay to the scheduled Tier 4 SEM date due to weather conditions, including not meeting the wind requirements in §60.764(a)(6)(iii)(A), the owner or operator of a landfill shall notify the ~~Administrator~~ Department by email or telephone no later than 48 hours before any delay or cancellation in the original test date, and arrange an updated date with the ~~Administrator~~ Department by mutual agreement.

§60.768 Recordkeeping requirements.

(a) Except as provided in §60.767(c)(2), each owner or operator of an MSW landfill subject to the provisions of §60.762(b)(2)(ii) and (iii) must keep for at least 5 years up-to-date, readily accessible, on-site records of the design capacity report that triggered §60.762(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 §60.767(c)(2), each owner or operator of a controlled landfill must keep up-to-date, readily accessible records for the life of the control system equipment of the data listed in paragraphs (b)(1) through (5) of this section as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring must be maintained for a minimum of 5 years. Records of the control device vendor specifications must be maintained until removal.

(1) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §60.762(b)(2)(ii):

(i) The maximum expected gas generation flow rate as calculated in §60.765(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~~ Department.

(ii) The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in §60.769(a)(1).

(2) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §60.762(b)(2)(iii) through use of an enclosed combustion device other than a boiler or process heater with a design heat input capacity equal to or greater than 44 megawatts:

(i) The average 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 §60.762(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 §60.762(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 §60.762(b)(2)(iii)(A) through use of a non-enclosed flare, the flare type (*i.e.,* steam-assisted, air-assisted, or nonassisted), all visible emission readings, heat content determination, flow rate

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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.

(5) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §60.762(b)(2)(iii) through use of a landfill gas treatment system:

(i) *Bypass records.* Records of the flow of landfill gas to, and bypass of, the treatment system.

(ii) *Site-specific treatment monitoring plan,* to include:

(A) Monitoring records of parameters that are identified in the treatment system monitoring plan and that ensure the treatment system is operating properly for each intended end use of the treated landfill gas. At a minimum, records should include records of filtration, de-watering, and compression parameters that ensure the treatment system is operating properly for each intended end use of the treated landfill gas.

(B) Monitoring methods, frequencies, and operating ranges for each monitored operating parameter based on manufacturer's recommendations or engineering analysis for each intended end use of the treated landfill gas.

(C) Documentation of the monitoring methods and ranges, along with justification for their use.

(D) Identify who is responsible (by job title) for data collection.

(E) Processes and methods used to collect the necessary data.

(F) Description of the procedures and methods that are used for quality assurance, maintenance, and repair of all continuous monitoring systems.

(c) Except as provided in §60.767(c)(2), each owner or operator of a controlled landfill subject to the provisions of this subpart must keep for 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in §60.766 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 must be recorded and reported under §60.767(g):

(i) For enclosed combustors except for boilers and process heaters with design heat input capacity of 44 megawatts (150 million British thermal units per hour) or greater, all 3-hour periods of operation during which the average temperature was more than 28 degrees Celsius (82 degrees Fahrenheit) below the average combustion temperature during the most recent performance test at which compliance with §60.762(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 must keep up-to-date, readily accessible continuous records of the indication of flow to the control system and 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 §60.766.

(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 §60.762(b)(2)(iii) must 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 a non-enclosed flare must keep up-to-date, readily accessible continuous records of the flame or flare pilot flame monitoring specified under §60.766(c), and up-to-date, readily accessible records of all periods of operation in which the flame or flare pilot flame is absent.

(5) Each owner or operator of a landfill seeking to comply with §60.762(b)(2) using an active collection system designed in accordance with §60.762(b)(2)(ii) must keep records of periods when the collection system or control device is not operating.

(d) Except as provided in §60.767(c)(2), each owner or operator subject to the provisions of this subpart must 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 must keep up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified under §60.765(b).

(2) Each owner or operator subject to the provisions of this subpart must 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 §60.769(a)(3)(i) as well as any nonproductive areas excluded from collection as provided in §60.769(a)(3)(ii).

(e) Except as provided in §60.767(c)(2), each owner or operator subject to the provisions of this subpart must keep for at least 5 years up-to-date, readily accessible records of the following:

(1) All collection and control system exceedances of the operational standards in §60.763, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance.

(2) Each owner or operator subject to the provisions of this subpart must also keep records of each wellhead temperature monitoring value of 55 degrees Celsius (131 degrees Fahrenheit) or above, each wellhead nitrogen level at or above 20 percent, and each wellhead oxygen level at or above 5 percent.

(3) For any root cause analysis for which corrective actions are required in §60.765(a)(3)(i) or (a)(5)(i), keep a record of the root cause analysis conducted, including a description of the recommended corrective action(s) taken, and the date(s) the corrective action(s) were completed.

(4) For any root cause analysis for which corrective actions are required in §60.765(a)(3)(ii) or (a)(5)(ii), keep a record of the root cause analysis conducted, the corrective action analysis, the date for corrective action(s) already completed following the positive pressure reading or high temperature reading, and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates.

(5) For any root cause analysis for which corrective actions are required in §60.765(a)(3)(iii) or (a)(5)(iii), keep a record of the root cause analysis conducted, the corrective action analysis, the date for corrective action(s) already completed following the positive pressure reading or high temperature reading, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates, and a copy of any comments or final approval on the corrective action analysis or schedule from the regulatory agency.

(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", must 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.

(g) Landfill owners or operators seeking to demonstrate that site-specific surface methane emissions are below 500 parts per million by conducting surface emission monitoring under the Tier 4 procedures specified in §60.764(a)(6) must keep for at least 5 years up-to-date, readily accessible records of all surface emissions monitoring and information related to monitoring instrument calibrations conducted according to sections 8 and 10 of Method 21 of appendix A of this part, including all of the following items:

(1) Calibration records:

(i) Date of calibration and initials of operator performing the calibration.

(ii) Calibration gas cylinder identification, certification date, and certified concentration.

(iii) Instrument scale(s) used.

(iv) A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value.

(v) If an owner or operator makes their own calibration gas, a description of the procedure used.

(2) Digital photographs of the instrument setup, including the wind barrier. The photographs must be

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time and date-stamped and taken at the first sampling location prior to sampling and at the last sampling location after sampling at the end of each sampling day, for the duration of the Tier 4 monitoring demonstration.

(3) Timestamp of each surface scan reading:

(i) Timestamp should be detailed to the nearest second, based on when the sample collection begins.

(ii) A log for the length of time each sample was taken using a stopwatch (*e.g.,* the time the probe was held over the area).

(4) Location of each surface scan reading. The owner or operator must determine the coordinates using an instrument with an accuracy of at least 4 meters. Coordinates must be in decimal degrees with at least five decimal places.

(5) Monitored methane concentration (parts per million) of each reading.

(6) Background methane concentration (parts per million) after each instrument calibration test.

(7) Adjusted methane concentration using most recent calibration (parts per million).

(8) For readings taken at each surface penetration, the unique identification location label matching the label specified in paragraph (d) of this section.

(9) Records of the operating hours of the gas collection system for each destruction device.

(h) Except as provided in §60.767(c)(2), each owner or operator subject to the provisions of this subpart must keep for at least 5 years up-to-date, readily accessible records of all collection and control system monitoring data for parameters measured in §60.766(a)(1), (2), and (3).

(i) Any records required to be maintained by this subpart that are submitted electronically via the EPA's CDX may be maintained in electronic format.

(j) For each owner or operator reporting leachate or other liquids addition under §60.767(k), keep records of any engineering calculations or company records used to estimate the quantities of leachate or liquids added, the surface areas for which the leachate or liquids were applied, and the estimates of annual waste acceptance or total waste in place in the areas where leachate or liquids were applied.

§60.769 Specifications for active collection systems.

(a) Each owner or operator seeking to comply with §60.762(b)(2)(i) must 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~~ Department as provided in §60.767(c)(2) and (3):

(1) The collection devices within the interior must be certified to achieve comprehensive control of surface gas emissions by a professional engineer. The following issues must be addressed in the design: Depths of refuse, refuse gas generation rates and flow characteristics, cover properties, gas system expandability, leachate and condensate management, accessibility, compatibility with filling operations, integration with closure end use, air intrusion control, corrosion resistance, fill settlement, resistance to the refuse decomposition heat, and ability to isolate individual components or sections for repair or troubleshooting without shutting down entire collection system.

(2) The sufficient density of gas collection devices determined in paragraph (a)(1) of this section must 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 must control all gas producing areas, except as provided by paragraphs (a)(3)(i) and (ii) of this section.

(i) Any segregated area of asbestos or nondegradable material may be excluded from collection if documented as provided under §60.768(d). The documentation must provide the nature, date of deposition, location and amount of asbestos or nondegradable material deposited in the area, and must be provided to the ~~Administrator~~ Department 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 must be documented and provided to the ~~Administrator~~ Department upon request. A separate NMOC emissions estimate must be made for each

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section proposed for exclusion, and the sum of all such sections must be compared to the NMOC emissions estimate for the entire landfill.

(A) The NMOC emissions from each section proposed for exclusion must be computed using Equation 7:

$$Q_i = 2\ k\ L_o M_i (e^{-kt_i})\ (C_{NMOC})\ (3.6 \times 10^{-9}) \qquad \text{(Eq.7)}$$

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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.

(B) If the owner/operator is proposing to exclude, or cease gas collection and control from, nonproductive physically separated (*e.g.,* separately lined) closed areas that already have gas collection systems, NMOC emissions from each physically separated closed area must be computed using either Equation 3 in §60.764(b) or Equation 7 in paragraph (a)(3)(ii)(A) of this section.

(iii) The values for k and C_{NMOC} determined in field testing must 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, L_o and C_{NMOC} provided in §60.764(a)(1) or the alternative values from §60.764(a)(5) must 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 §60.762(b)(2)(ii)(A) construct the gas collection devices using the following equipment or procedures:

(1) The landfill gas extraction components must 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 must extend as necessary to comply with emission and migration standards. Collection devices such as wells and horizontal collectors must be perforated to allow gas entry without head loss sufficient to impair performance across the intended extent of control. Perforations must be situated with regard to the need to prevent excessive air infiltration.

(2) Vertical wells must be placed so as not to endanger underlying liners and must address the occurrence of water within the landfill. Holes and trenches constructed for piped wells and horizontal collectors must 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 must 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 must include a positive closing throttle valve, any necessary seals and couplings, access couplings and at least one sampling port. The collection devices must be constructed of PVC, HDPE, fiberglass, stainless steel, or other nonporous material of suitable thickness.

(c) Each owner or operator seeking to comply with §60.762(b)(2)(iii) must convey the landfill gas to a control system in compliance with §60.762(b)(2)(iii) through the collection header pipe(s). The gas mover equipment must 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:

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(1) For existing collection systems, the flow data must be used to project the maximum flow rate. If no flow data exists, the procedures in paragraph (c)(2) of this section must be used.

(2) For new collection systems, the maximum flow rate must be in accordance with §60.765(a)(1).

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APPENDIX C

Certification of Public Noticing

Placeholder for

- Legal Notice in News Journal on March 12
- Legal Notice in Delaware State News on March 12
- Public Notice on DNREC website
- Public Notice on Delaware's Statewide Meeting Calendar
- Public Notice in biweekly E-News Update from DNREC's Office of Environmental Protection
- Notification to EPA Region 3
- Certification that the hearing was held in accordance with the requirements of 40 CFR 60.23(d)
- List of witness and their affiliation, if any, appearing at the hearing with a brief summary of the presentation or submittal

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DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

DIVISION OF AIR QUALITY

Statutory Authority: 7 Delaware Code, Chapter 60; (7 **Del.C.** Ch. 60)

7 DE Admin. Code 1120

REGISTER NOTICE

SAN # 2017-03

1120 New Source Performance Standards

1. **TITLE OF THE REGULATIONS:**
   7 **DE Admin. Code** 1120 New Source Performance Standards

2. **BRIEF SYNOPSIS OF THE SUBJECT, SUBSTANCE AND ISSUES:**
   On August 29, 2016, the EPA promulgated two regulations applicable to municipal solid waste landfills (MSWLs). The EPA promulgated 40 CFR Part 60 Subpart XXX under 111(b); Subpart XXX regulated the emissions from new MSWLs. The EPA promulgated 40 CFR Part 60 Subpart Cf under 111(d); Subpart Cf mandated state agencies to develop plans to regulate emissions from existing MSWLs. The purpose of these two federal regulations was to reduce the public health impacts associated with VOC and methane emissions from MSWLs.
   The purpose of this action is to incorporate the federal new MSWL requirements in Subpart XXX by reference as Section 30 of 7 **DE Admin. Code** 1120. To satisfy the existing MSWL requirements of Subpart Cf, the applicability of Section 30 will be expanded to include both existing and new MSWLs. Once finalized, Section 30 and the State Plan will be submitted to the EPA for approval. There are three existing MSWLs in Delaware; all are operated by the Delaware Solid Waste Authority. There are no new MSWLs.

3. **POSSIBLE TERMS OF THE AGENCY ACTION:**
   None

4. **STATUTORY BASIS OR LEGAL AUTHORITY TO ACT:**
   7 Delaware Code, Chapter 60, Environmental Control

5. **OTHER REGULATIONS THAT MAY BE AFFECTED BY THE PROPOSAL:**
   None

6. **NOTICE OF PUBLIC COMMENT:**
   Statements and testimony may be presented either orally or in writing at a public hearing to be held on Monday, April 24, 2017 starting at 6:00 PM in the DNREC office located at 100 W. Water Street (Suite 6A), Dover, DE. If you are unable to attend or wish to submit your comments in advance of the public hearing, please send your comments to address below. Interested parties may also submit written comments to the Department, to the same address below, up until the end of the comment period, which will extend through May 9, 2017, unless a longer 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

7. **PREPARED BY:**
   Jim Snead (302) 323-4542 jsnead@state.de.us March 12, 2017

***Please Note: The Regulatory Flexibility Analysis and Impact Statement for this regulation, as required by 29 Del.C. Ch. 104, is available at:**

http://regulations.delaware.gov/register/april2017/proposed/20 DE Reg 771RFA 04-01-17.pdf

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DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

DIVISION OF AIR QUALITY

Statutory Authority: 7 Delaware Code, Chapter 60; (7 **Del.C.** Ch. 60)
7 **DE Admin. Code** 1120

REGISTER NOTICE
SAN # 2017-03

State Plan for the Regulation of Air Emissions from Municipal Solid Waste Landfills

1. TITLE OF THE REGULATIONS:
State Plan for the Regulation of Air Emissions from Municipal Solid Waste Landfills

2. BRIEF SYNOPSIS OF THE SUBJECT, SUBSTANCE AND ISSUES:
On August 29, 2016, the EPA promulgated two regulations applicable to municipal solid waste landfills (MSWLs). The EPA promulgated 40 CFR Part 60 Subpart XXX under 111(b); Subpart XXX regulated the emissions from new MSWLs. The EPA promulgated 40 CFR Part 60 Subpart Cf under 111(d); Subpart Cf mandated state agencies to develop plans to regulate emissions from existing MSWLs. The purpose of these two federal regulations was to reduce the public health impacts associated with VOC and methane emissions from MSWLs.

The purpose of this action is to incorporate the federal new MSWL requirements in Subpart XXX by reference as Section 30 of 7 DE Admin Code 1120. To satisfy the existing MSWL requirements of Subpart Cf, the applicability of Section 30 will be expanded to include both existing and new MSWLs. Once finalized, Section 30 and the State Plan will be submitted to the EPA for approval. There are three existing MSWLs in Delaware; all are operated by the Delaware Solid Waste Authority. There are no new MSWLs.

3. POSSIBLE TERMS OF THE AGENCY ACTION:
None

4. STATUTORY BASIS OR LEGAL AUTHORITY TO ACT:
7 Delaware Code, Chapter 60, Environmental Control

5. OTHER REGULATIONS THAT MAY BE AFFECTED BY THE PROPOSAL:
None

6. NOTICE OF PUBLIC COMMENT:
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DNREC - Division of Air Quality
Subject: April 24 Public Hearing
715 Grantham Lane
New Castle, DE 19720

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7. **PREPARED BY:**

Jim Snead (302) 323-4542 jsnead@state.de.us March 12, 2017

State Plan for the Regulation of Air Emissions from Municipal Solid Waste Landfills

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DNREC Public Notices Website

http://www.dnrec.delaware.gov/Lists/Public%20Notices/DispForm.aspx?ID=3670&Source=http%3A%2F%2Fwww%2Ednrec%2Edelaware%2Egov%2FLists%2FPublic%2520Notices%2FAllItems%2Easpx&ContentTypeId=0x010034FD6D348B0CF04392485E93FC15AB3A

Public Notices : PUBLIC HEARING

Start Date	3/12/2017
End Date	4/24/2017
Division	Air Quality
Notice Text	DNREC/DIVISION OF AIR QUALITY

LEGAL NOTICE

PUBLIC HEARING

The Department of Natural Resources and Environmental Control (DNREC) will conduct a public hearing on a proposed State Plan and amendment to existing Regulation No. 1120 New Source Performance Standards to add a new standard (Section 30) that is applicable to municipal solid waste landfills (MSWLs).

On August 29, 2016, the EPA promulgated two regulations applicable to MSWLs. The EPA promulgated 40 CFR Part 60 Subpart XXX, which regulates the emissions from new (i.e., newly constructed, reconstructed, or modified) MSWLs and 40 CFR Part 60 Subpart Cf, which requires States to regulate emissions from existing MSWLs. The purpose of these two federal regulations is to reduce volatile organic compounds (VOCs) and methane emissions from MSWLs.

DNREC is proposing to incorporate the federal new MSWL requirements in Subpart XXX by reference as Section 30 of Regulation No. 1120. To satisfy the existing MSWL requirements of Subpart Cf, the applicability of Section 30 will be expanded to include both existing and new MSWLs. Once finalized, Section 30 and the State Plan will be submitted to the EPA for approval. There are three MSWLs in Delaware; all are operated by the Delaware Solid Waste Authority and will be subject to the State Plan and amended regulation.

The public hearing on this proposed State Plan and amendment of Regulation No. 1120 will be held on Monday, April 24, 2017, beginning at 6:00PM in the Department's office located at 100 W. Water Street, Suite 6A, Dover, DE.

The proposed amendment and the State Plan are available for public review (1) at the Department's office at 715 Grantham Lane in New Castle, DE; (2) at the Department's office at 100 W. Water Street, Suite 6A in Dover, DE; (3) in the statewide Public Meeting Calendar notice for this hearing at https://publicmeetings.delaware.gov/, and (4) in the April 1, 2017 edition of the Delaware Register of Regulations on and after April 1 at http://regulations.delaware.gov/services/register.shtml. For additional information or any appointment to inspect the proposed amendment and State Plan, please contact either Jim Snead at the New Castle office at (302) 323-4542 or jsnead@state.de.us or Ron Amirikian at the Dover office at (302) 739-9402 or ronald.amirikian@state.de.us.

Statements and testimony may be presented either orally or in writing at the April 24 public hearing. If you are unable to attend or wish to submit your comments in advance of the public hearing, please send your comments to the address below. Interested parties may also submit written comments to the Department, to the same 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

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Before me, a Notary Public, for the County and State aforesaid, Edward Dulin, known to me to be such, who being sworn according to law deposes and says that he is President of Independent Newsmedia Inc. USA, the publisher of the **Delaware State News**, a daily newspaper published at Dover, County of Kent, and State of Delaware, and that the notice, a copy of which is hereto attached, as published in the **Delaware State News** in its issue of March 12, 2017.

President
Independent Newsmedia Inc. USA

Sworn to and subscribed before me this 12th

Day of March A.D. 2017

JANET E. LEVY NOTARY PUBLIC MY COMMISSION EXPIRES ON 09-20-17 STATE OF DELAWARE

Janet Levy
Notary Public

DNREC – Division of Air Quality
LEGAL NOTICE

PUBLIC HEARING

The Department of Natural Resources and Environmental Control (DNREC) will conduct a public hearing on a proposed State Plan and amendment to existing **Regulation No. 1120** New Source Performance Standards to add a new standard (Section 30) that is applicable to municipal solid waste landfills (MSWLs).

On August 29, 2016, the EPA promulgated two regulations applicable to MSWLs. The EPA promulgated 40 CFR Part 60 Subpart XXX, which regulates the emissions from new (i.e., newly constructed, reconstructed, or modified) MSWLs and 40 CFR Part 60 Subpart Cf, which requires States to regulate emissions from existing MSWLs. The purpose of these two federal regulations is to reduce volatile organic compounds (VOCs) and methane emissions from MSWLs.

DNREC is proposing to incorporate the federal new MSWL requirements in Subpart XXX by reference as Section 30 of **Regulation No. 1120**. To satisfy the existing MSWL requirements of Subpart Cf, the applicability of Section 30 will be expanded to include both existing and new MSWLs. Once finalized, Section 30 and the State Plan will be submitted to the EPA for approval. There are three MSWLs in Delaware; all are operated by the Delaware Solid Waste Authority and will be subject to the State Plan and amended regulation.

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DNREC – Division of Air Quality
Subject: April 24 Public Hearing
715 Grantham Lane
New Castle, DE 19720

THIS IS THE ONLY TIME THIS NOTICE WILL APPEAR.

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SD DNREC AIR RESOURCE
100 W WATER ST # 6A

DOVER, DE 19904

AFFIDAVIT OF PUBLICATION

State of Delaware
New Castle County

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03/12/17 **A.D 2017**

Sherry Ann Salvia
Sworn and subscribed before me, this 13 day of March, 2017

Linda Barber

Ad Number: 0001985376

SHERRY ANN SALVIA
MY COMMISSION EXPIRES ON 02-06-2019
NOTARY PUBLIC
STATE OF DELAWARE

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DNREC – Division of Air Quality

LEGAL NOTICE

PUBLIC HEARING

The Department of Natural Resources and Environmental Control (DNREC) will conduct a public hearing on a proposed State Plan and amendment to existing **Regulation No. 1120** New Source Performance Standards to add a new standard (Section 30) that is applicable to municipal solid waste landfills (MSWLs).

On August 29, 2016, the EPA promulgated two regulations applicable to MSWLs. The EPA promulgated 40 CFR Part 60 Subpart XXX, which regulates the emissions from new (i.e., newly constructed, reconstructed, or modified) MSWLs and 40 CFR Part 60 Subpart Cf, which requires States to regulate emissions from existing MSWLs. The purpose of these two federal regulations is to reduce volatile organic compounds (VOCs) and methane emissions from MSWLs.

DNREC is proposing to incorporate the federal new MSWL requirements in Subpart XXX by reference as Section 30 of **Regulation No. 1120**. To satisfy the existing MSWL requirements of Subpart Cf, the applicability of Section 30 will be expanded to include both existing and new MSWLs. Once finalized, Section 30 and the State Plan will be submitted to the EPA for approval. There are three MSWLs in Delaware; all are operated by the Delaware Solid Waste Authority and will be subject to the State Plan and amended regulation.

The public hearing on this proposed State Plan and amendment of Regulation No. 1120 will be held on Monday, April 24, 2017, beginning at 6:00PM in the Department's office located at 100 W. Water Street, Suite 6A, Dover, DE.

The proposed amendment and the State Plan are available for public review (1) at the Department's office at 715 Grantham Lane in New Castle, DE; (2) at the Department's office at 100 W. Water Street, Suite 6A in Dover, DE; (3) in the statewide Public Meeting Calendar notice for this hearing at https://publicmeetings.delaware.gov/, and (4) in the April 1, 2017 edition of the Delaware Register of Regulations on and after April 1 at http://regulations.delaware.gov/services/register.shtml. For additional information or any appointment to inspect the proposed amendment and State Plan, please contact either Jim Snead at the New Castle office at (302) 323-4542 or jsnead@state.de.us or Ron Amirikian at the Dover office at (302) 739-9402 or ronald.amirikian@state.de.us.

Statements and testimony may be presented either orally or in writing at the April 24 public hearing. If you are unable to attend or wish to submit your comments in advance of the public hearing, please send your comments to the address below. Interested parties may also submit written comments to the Department, to the same 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

THIS IS THE ONLY TIME THIS NOTICE WILL APPEAR.

3/12- NJ

Snead, James (DNREC)

From: Snead, James (DNREC)
Sent: Wednesday, March 22, 2017 9:47 AM
To: 'Fernandez.Cristina@epa.gov'; gordon.mike@epa.gov; 'cecily.beall@dc.gov'; 'george.aburn@maryland.gov'; 'mgdowd@deq.virginia.gov'; 'william.f.durham@wv.gov'; 'kramamurth@pa.gov'; 'francis.steitz@dep.nj.gov'; Kassahun.Sellassie@phila.gov ;' jgraham@achd.net'
Cc: Mirzakhalili, Ali (DNREC); Amirikian, Ronald A. (DNREC); Gray, Valerie A. (DNREC); Marconi, Angela D. (DNREC)
Subject: Delaware DNREC Public Hearing Notice on proposed III(d) State Plan and Regulation for Municipal Solid Waste Landfills (MSWLS)
Attachments: Proposed MSWL State Plan - 3-l2AB.pdf; 1120-30 Proposed 3-l2.pdf

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%2F%2Fwww%2Ednrec%2Edelaware%2Egov%2FLists%2FPublic%2520Notices%2FAllItems%2Easpx&ContentTypeId=0x010034FD6D348B0CF04392485E93FC15AB3A

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

About Attachments

Proposed MSWL State Plan - 3-l2AB.pdf (Exhibit DNREC - 16x Proposed Submittal to ROR - State Plan)

1120-30 Proposed 3-l2.pdf (DNREC - 14x Proposed Submittal to ROR - Section 30)

Snead, James (DNREC)

From: Snead, James (DNREC)
Sent: Monday, March 20, 2017 8:11 PM
To: Snead, James (DNREC)
Subject: Fw: Landfill Rule

From: Marconi, Angela D. (DNREC)
Sent: Monday, March 20, 2017 2:08 PM
To: Snead, James (DNREC)
Subject: FW: Landfill Rule

See below.

From: Mike Lenkiewicz [mailto:mrl@dswa.com]
Sent: Monday, March 20, 2017 1:01 PM
To: Marconi, Angela D. (DNREC)
Subject: RE: Landfill Rule

Angela,

Below is the waste in place tonnage in the closed disposal areas of CSWMC and SSWMC.

CSWMC
Area A/B 718,000 tons
Area C 605,000 tons
Area D 693,700 tons
2,016,700
C/D valley is included in Area D total

SSWMC
Cell 1 438,000 tons
Cell 2 1,093,885 tons
Cell 3 1,032,200 tons
2,564,085

Mike

From: Marconi, Angela D. (DNREC) [mailto:Angela.Marconi@state.de.us]
Sent: Thursday, March 16, 2017 3:36 PM
To: 'Mike Lenkiewicz'
Subject: RE: Landfill Rule

Mike,

When can you provide this information? I assume that the info for closed cells is readily available. Logan used to maintain fact sheets on all facilities and I think this info was included.

Please let me know.
Thanks,
Angela

From: Mike Lenkiewicz [mailto:mrl@dswa.com]
Sent: Monday, March 13, 2017 9:01 AM

To: Marconi, Angela D. (DNREC)
Subject: RE: Landfill Rule

Disregard previous question. I see these are all previously filled cells.

From: Marconi, Angela D. (DNREC) [mailto:Angela.Marconi@state.de.us]
Sent: Friday, March 10, 2017 3:30 PM
To: 'Mike Lenkiewicz'
Subject: RE: Landfill Rule

Thanks Mike,

Can you also send me the waste in place for Area A/B, C, D and CD valley at CSWMC and cells 1&2, and 3 at SSWMC.

-Angela

From: Mike Lenkiewicz [mailto:mrl@dswa.com]
Sent: Wednesday, March 08, 2017 4:46 PM
To: Marconi, Angela D. (DNREC)
Subject: RE: Landfill Rule

Angela,

Since the waste permits only actually limit elevations I am providing you with "estimated" waste capacities in tons based on the geometric limits.

CIL (includes waste in place)
46,587,400 tons (all phases are technically still available to accept waste) /1.1023 = 42.263 Million Mg

CSWMC (includes waste in place)
Area E - 2,400,000 tons
Area F – 4,296,500 tons } + 2,016,700 = 8,713,200 /1.1023 = 7.904 Million Mg
SSWMC (includes waste in place)
Cell 4 – 1,032,200 tons
Cell 5 – 3,588,900 tons } + 2,564,085 = 7185185 /1.1023 = 6.518 Million Mg

Nicole returned today. She needs a little time to look at the docs. We'll have comments/questions soon.
Mike

QRS 4/10/17

From: Marconi, Angela D. (DNREC) [mailto:Angela.Marconi@state.de.us]
Sent: Monday, March 06, 2017 8:22 AM
To: 'Mike Lenkiewicz'
Subject: FW: Landfill Rule
Importance: High

Mike,

Please let me know the timing and reply asap with the design capacities for the facilities.

Thanks,
Angela

From: Marconi, Angela D. (DNREC)
Sent: Wednesday, March 01, 2017 8:05 AM

To: 'Mike Lenkiewicz'
Subject: Landfill Rule

Mike,

Hello! I just wanted to check with you to see if you have any comments/questions following our meeting on DE's State Plan for the new Landfill NSPS. I know you wanted to discuss with Nicole when she returns but I can't recall what the timing on that is.

Also, if you can provide the design capacities for Cherry Island, Central and Southern at this time, that would be great.

Thanks,

Angela D. Marconi, P.E., BCEE
Managing Engineer
DNREC - Division of Air Quality
715 Grantham Lane
New Castle, DE 19720
(302) 323-4542 (main number)
(302) 323-4598 (fax)

Blue Skies Delaware; Clean Air for Life

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Municipal Solid Waste Landfills Subject To Emission Guidelines in Subpart Cf					
Facility Name	**County**	**Design Capacity (Million Mg)**	**2015 Estimated NMOC Emissions (Uncontrolled)**	**Tier**	**Year Opened**
Cherry Island (NSWMC-2)	New Castle	**[42.263]** **[9.452]**	47.15 Mg/year	1	10/85
Central Solid Waste Management Center (CSWMC)	Kent	**[7.904]** **[4.606]**	28.85 Mg/year	1	10/80
Southern Solid Waste Management Center (SSWMC)	Sussex	**[6.518]** **[5.109]**	12.83 Mg/year	1	10/84

Note that pursuant to Section 28 of 7 **DE Admin. Code** 1120 each of these three existing municipal solid waste landfills is currently subject to the requirements of 40 CFR Part 60 Subpart WWW.

V. Emission Standards

The emission standards for municipal solid waste landfills are those stated in Section 60.762 of Section 30. These standards include design capacity cutoff for applicability, NMOC emission limits, collection system requirements, types of control device requirements, and length of time of required control for municipal solid waste landfills. The test methods and procedures for determining compliance with the emission standards are those stated in Section 60.764 of Section 30.

The emission standards apply to any municipal solid waste landfill, open or closed, that commenced construction, reconstruction, or modification after July 17, 2014 or that has accepted waste after November 8, 1987 or that has additional capacity available to accept waste.

VI. Process for Review of Design Plans

For a landfill subject to the emission standards, the owner or operator must submit to the Department a Collection and Control Design Plan. This design plan must meet the requirements stated in Section 30.

As provided for in Section 30, the Department will review each submitted design plan and will, in writing, either approve it, disapprove it, or request that additional information be submitted.

VII. Compliance Schedules

The table below specifies the compliance schedule for existing municipal solid waste landfills in the State of Delaware.

Compliance Schedule for Existing Municipal Solid Waste Landfills	
State Plan Submittal to EPA	May 30, 2017
EPA approval of State Plan	Within 4 months of submittal to EPA
Final emission guideline compliance date	For NSWMC-2, CSWMC, and SSWMC, to be completed as expeditiously as possible but no later than 180 days from the effective date of Section 30

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DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

Division of Air Quality

STATE PLAN FOR THE REGULATION OF AIR EMISSIONS FROM MUNICIPAL SOLID WASTE LANDFILLS

March 12, 2017

ED_001764F_00005674-00001

DELAWARE STATE PLAN TO REGULATE AIR EMISSIONS FROM MUNICIPAL SOLID WASTE LANDFILLS

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Delaware State Plan to Regulate Air Emissions from Municipal Solid Waste Landfills

I. Introduction

On March 12, 1996, the Environmental Protection Agency (EPA) promulgated emission guidelines (EG) for the control of landfill gas (LFG) emissions from existing municipal solid waste (MSW) landfills. The EG are found in Subpart Cc of 40 CFR Part 60. Effective August 29, 2016 the EPA finalized a new subpart that updates the EG and Compliance Times for existing Municipal Solid Waste Landfills to reflect changes to the population of landfills and the results of an EPA analysis of the timing and methods for reducing emissions. The revised EG is found in Subpart Cf of 40 CFR Part 60.

Landfill gas contains methane, carbon dioxide, and more than 100 different nonmethane organic compounds (NMOCs) including volatile organic compounds (VOCs), hazardous air pollutants (HAPs), and odorous compounds. Landfills are a significant source of methane, which is a potent greenhouse gas pollutant. The EPA has determined that affects from these compounds include ground-level ozone formation, cancer and noncancer health effects, odor nuisance, methane migration and fire hazard potential, and global warming.

The State of Delaware has developed this State Plan for imposing collection and control requirements on existing landfills, as required by the emission guidelines, Section 111(d) of the Clean Air Act, and 40 CFR Part 60 Subpart B, Adoption and Submittal of State Plans for Designated Facilities.

II. Legal Authorities and Enforceable Mechanism

Effective August 29, 2016, the EPA promulgated a new source performance standard (NSPS) for the control of emissions from new (i.e. newly constructed, reconstructed or modified) MSW landfills. The NSPS is found at 40 CFR Part 60 Subpart XXX (Subpart XXX). The EPA also promulgated emission guidelines for the development of State Plans to control the emissions from existing MSW landfills. The emission guideline is found at 40 CFR Part 60 Subpart Cf (Subpart Cf). 7 **Del.C**. Ch. 60 (Environmental Control) gives the Secretary of the Department of Natural Resources and Environmental Control (DNREC) the legal authority to adopt, implement, and enforce regulations that control the emissions of air contaminants into the atmosphere. Delaware's plan is to adopt into 7 **DE Admin. Code** 1120, "New Source Performance Standards", a new regulation, as Section 30, that incorporates Subpart XXX by reference. When adopting Subpart XXX, the MSW landfills being subject to Section 30 of 7 **DE Admin. Code** 1120 (Section 30) will be expanded to additionally include all MSW landfills that have accepted municipal solid waste after November 8, 1987 or MSW landfills that have additional capacity available to accept municipal solid waste. Thus, Delaware's 3 existing MSW landfills are also subject to Section 30; thereby enabling Delaware to meet the applicability requirements of Subpart Cf. Once promulgated, the regulation and this State Plan will be submitted to the EPA for approval pursuant to 40 CFR 60.27. Delaware has the requisite legal authorities to develop, implement and enforce this State Plan, specifically:

1. Section 6010 "Rules and regulations; plans" of 7 **Del.C**. Ch. 60 gives the Secretary the authority to adopt regulations that control the emissions of air contaminants, which includes the designated pollutants in Subpart Cf, into the atmosphere.

2. Section 6005 "Enforcement; civil and administrative penalties; expenses" of 7 **Del.C**. Ch. 60 gives the Secretary the authority to enforce any rule, regulation, or permit condition.

3. Section 6010 of 7 **Del.C**. Ch. 60, 7 **DE Admin. Code** 1102 "Permits," 7 **DE Admin. Code** 1117 "Source Monitoring, Recordkeeping and Reporting," 7 **DE Admin. Code** 1130 "Title V State Operating Permit Program," and Section 30, gives the Secretary the authority to obtain information necessary to determine compliance.

4. Section 6010 and section 6024 "Right of Entry" of 7 **Del.C**. Ch. 60, 7 **DE Admin. Code** 1102, 7 **DE Admin. Code** 1117, 7 **DE Admin. Code** 1130, and Section 30, gives the Secretary the

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

5. Section 6010 of 7 **Del.C**. Ch. 60, 7 **DE Admin. Code** 1102, 7 **DE Admin. Code** 1117, 7 **DE Admin. Code** 1130, and Section 30, gives the Secretary the authority to require the use of monitors and require emission reports of municipal solid waste landfill owners or operators.

6. Section 6014 "Regulatory and compliance information, facility performance and public information" of 7 **Del.C**. Ch. 60, 7 **DE Admin. Code** 1102, and 7 **DE Admin. Code** 1130 gives the Secretary the authority to make emission data available to the public.

The requisite legal authorities, which are available at the time of the submission of the State Plan, are provided in APPENDIX A of this State Plan.

The complete text of Subpart XXX, as adopted in Section 30, is provided in APPENDIX B of this State Plan. Other referenced documents are available from the Department upon request.

III. Adoption of 40 CFR Part 60 Subpart XXX by Reference

The State of Delaware is adopting Subpart XXX by reference with several changes that also make existing municipal solid waste landfills subject to Section 30. The adoption of this regulation will be incorporated into the State of Delaware "**Regulations Governing the Control of Air Pollution**" in Section 30. This regulation will read as follows:

DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL
Division of Air Quality
1120 New Source Performance Standards

30.0 Standards of Performance for Municipal Solid Waste Landfills After July 11, 2017

The provisions of Subpart XXX of Part 60, Title 40 of the Code of Federal Regulations - "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, attached hereto, are hereby incorporated herein and adopted by reference, subject to the following changes:

30.1 Wherever the word "Administrator" appears it shall be replaced by the word "Department", with the exception of paragraphs 60.760(b) and 60.764(a)(5).

30.2 The ASTM Standard Test Method D6522-11 is incorporated herein and adopted by reference. The following definitions, subsections and test methods that are referenced in the text of the preceding adoption are also incorporated herein and adopted by reference as they appear in Title 40 of the Code of Federal Regulations, dated July 1, 2016:

30.2.1 The definition of "land application unit", "surface impoundment", "injection well", "waste pile" and "other types of RCRA Subtitle D wastes" as each of those terms is defined in 40 CFR 257.2.

30.2.2 The definition of "sludge" and "solid waste" as each of those terms is defined in 40 CFR 258.2.

30.2.3 The definition of "performance test" in 60.764(a)(3)(i), as the term is defined in 40 CFR 60.8.

30.2.4 The requirements of 40 CFR 51.166 and 52.21, as referenced in 60.764(c).

30.2.5 The requirements of 40 CFR 60.4, as referenced in 60.767(i)(2).

30.2.6 The requirements of 40 CFR 60.7(a)(1), as referenced in 60.767(a)(1).

30.2.7 The requirements of 40 CFR 60.7(a)(4), as referenced in 60.761 and 60.767(e).

30.2.8 The requirements of 40 CFR 60.8, as referenced in 60.764(b)(3)(i), 60.764(e)(1), 60.767(g), 60.767(h), and 60.767(i)(1).

30.2.9 The requirements of 40 CFR 60.17, as referenced in 60.766(a)(2)(ii) and 60.766(a)(2)(iii)(B).

30.2.10 The requirements of 40 CFR 60.18, as referenced in 60.762(b)(2)(iii)(A) and 60.768(b)(4).

30.2.11 The requirements of 40 CFR 60.18(f)(3) and 60.18(f)(4), as referenced in 60.764(e).

30.2.12 The requirements of 40 CFR 258, as referenced in 60.767(k).

30.2.13 The requirements of 40 CFR 258.40, as referenced in 60.762(b)(2)(ii)(D)(2).

30.2.14 The requirements of 40 CFR 258.60, as referenced in 60.767(e).

30.2.15 Methods 2, 2E, 3, 3A, 3C, 18, 21, 25, 25A and 25C in appendix A of 40 CFR Part 60.

30.3 The title of Subpart XXX shall be replaced with the following language: "30.0 Standards of Performance for Municipal Solid Waste Landfills After July 11, 2017."

30.4 Section 60.760(a) shall be replaced with the following language: "The provisions of this subpart apply to each municipal solid waste landfill, open or closed, that commenced construction, reconstruction, or modification after July 17, 2014 or that has accepted waste after November 8, 1987 or that has additional capacity available to accept waste."

30.5 Section 60.762(a) shall be replaced with the following language: "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 must submit an initial design capacity report to the Department as provided in §60.767(a). The landfill may calculate design capacity in either megagrams or cubic meters for comparison with the exemption values. Any density conversions must be documented and submitted with the report. For purposes of 7 **DE Admin. Code** 1130, Title V State Operating Permit Program, 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 7 **DE Admin. Code** 1130, provided it is not a major source as defined in 7 **DE Admin. Code** 1130. Submittal of the initial design capacity report fulfills the requirements of this subpart except as provided for in paragraphs (a)(1) and (2) of this section."

30.6 Delete ", local, or tribal" in Sections 60.761, 60.767(a)(2)(i) and 60.767(a)(2)(ii).

30.7 Paragraph 60.762(b) 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 either comply with paragraph (b)(2) of this section or calculate an NMOC emission rate for the landfill using the procedures specified in §60.764. The NMOC emission rate must be recalculated annually, except as provided in §60.767(b)(1)(ii). 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 7 **DE Admin. Code** 1130. When a landfill is closed, and either never needed control or meets the conditions for control system removal specified in §60.762(b)(2)(v), a 7 **DE Admin. Code** 1130 operating permit is no longer required."

30.8 Section 60.762(b)(2)(ii) 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 in accordance with paragraph (b)(2)(ii)(A) or (B) of this section, whichever is applicable."

30.9 Section 60.762(b)(2)(ii)(A) shall be replaced with the following language: "*For MSW landfills that commenced construction, reconstruction, or modification on or after July 17, 2014.* The collection and control system must be started up in accordance with paragraph (b)(2)(ii)(A)(*1*) or (*2*) of this section, whichever is applicable."

30.10 Add new section 60.762(b)(2)(ii)(A)*(1)* with the following language: "Within 30 months of the first annual report in which the NMOC emission rate equals or exceeds 34 megagrams per year, unless Tier 2 or Tier 3 sampling demonstrates that the NMOC emission rate is less than 34 megagrams per year, as specified in §60.767(c)(4) or".

30.11 Add new section 60.762(b)(2)(ii)(A)*(2)* with the following language: "Within 30 months of the most recent NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year based on Tier 2, if the Tier 4 surface emissions monitoring shows a surface methane emission concentration of 500 parts per million methane or greater as specified in §60.767(c)(4)(iii)."

30.12 Section 60.762(b)(2)(ii)(B) shall be replaced with the following language: "*For all other subject MSW landfills.* As expeditiously as practicable but not later than January 8, 2018."

30.13 Section 60.762(c) shall be replaced with the following language: "For purposes of obtaining an operating permit under title V of the Clean Air Act, the owner or operator of an 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 7 **DE Admin. Code** 1130,

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 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 7 **DE Admin. Code** 1130, becomes subject to the requirements of paragraph 5.1.1 of 7 **DE Admin. Code** 1130, regardless of when the design capacity report is actually submitted, no later than:".

30.14 Sections 60.762(c)(1), 60.767(a)(1)(i) and 60.767(b)(1)(i)(A) shall be replaced with the following language: "Ninety days after the date of commenced construction, modification, or reconstruction for MSW landfills that commenced construction, modification, or reconstruction on or after July 17, 2014 or".

30.15 Section 60.762(c)(2) and Section 60.767(b)(1)(i)(B) shall be replaced with the following language: "January 8, 2018 for all other subject MSW landfills."

30.16 Section 60.763(g) shall be replaced with the following language: "If monitoring demonstrates that the operational requirement in paragraphs (b), (c), or (d) of this section are not met, corrective action must be taken as specified in §60.765(a)(3) and (5) or §60.765(c). If corrective actions are taken, as specified in §60.765, the monitored exceedance is not a violation of the operational requirements in this section."

30.17 Section 60.767(a)(1)(ii) shall be replaced with the following language: "The date specified in a State construction or operating permit, if applicable, or January 8, 2018, whichever is earlier, for all other subject MSW landfills."

30.18 The final sentence in section 60.767(a)(2)(ii) shall be replaced with the following language: "The Department may request other reasonable information as may be necessary to verify the maximum design capacity of the landfill."

30.19 Section 60.767(i)(1)(ii) shall be replaced with the following language: "For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT Web site at the time of the test, you must submit the results of the performance test to the Department."

30.20 Section 60.767(k)(7) shall be replaced with the following language: "The initial report must contain items in paragraph (k)(1) through (6) of this section per year for the initial annual reporting period as well as for each of the previous 10 years, to the extent historical data are available in on-site records, and the report must be submitted no later than thirteen (13) months after the date of commenced construction, modification, or reconstruction for landfills that commenced construction, modification, or reconstruction on or after July 17, 2014 containing data for the first 12 months after August 29, 2016."

30.21 Delete and reserve sections 60.767(k)(7)(i) and 60.767(k)(7)(ii).

30.22 Section 60.768(c)(3) shall be replaced with the following language: "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 §60.762(b)(2)(iii) must 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 or federal regulatory requirements.)"

The complete text of Subpart XXX, as adopted in Section 30, is provided in APPENDIX B of this State Plan. All municipal solid waste landfills in Delaware are subject to Section 30.

IV. Source and Emission Inventories

Delaware has three municipal solid waste landfills that are subject to the requirements of this State Plan. All of these MSW landfills are currently accepting waste, have a design capacity greater than 2.5 million megagrams, and an uncontrolled NMOC emission rate of greater than 34 megagrams per year using Tier 1 procedures. These facilities along with the emission inventories are provided in the table below.

Municipal Solid Waste Landfills Subject To Emission Guidelines in Subpart Cf					
Facility Name	**County**	**Design Capacity (Million Mg)**	**2015 Estimated NMOC Emissions (Uncontrolled)**	**Tier**	**Year Opened**
Cherry Island (NSWMC-2)	New Castle	**[42.263]** **[~~9.452~~]**	47.15 Mg/year	1	10/85
Central Solid Waste Management Center (CSWMC)	Kent	**[7.904]** **[~~4.606~~]**	28.85 Mg/year	1	10/80
Southern Solid Waste Management Center (SSWMC)	Sussex	**[6.518]** **[~~5.109~~]**	12.83 Mg/year	1	10/84

Note that pursuant to Section 28 of 7 **DE Admin. Code** 1120 each of these three existing municipal solid waste landfills is currently subject to the requirements of 40 CFR Part 60 Subpart WWW.

V. Emission Standards

The emission standards for municipal solid waste landfills are those stated in Section 60.762 of Section 30. These standards include design capacity cutoff for applicability, NMOC emission limits, collection system requirements, types of control device requirements, and length of time of required control for municipal solid waste landfills. The test methods and procedures for determining compliance with the emission standards are those stated in Section 60.764 of Section 30.

The emission standards apply to any municipal solid waste landfill, open or closed, that commenced construction, reconstruction, or modification after July 17, 2014 or that has accepted waste after November 8, 1987 or that has additional capacity available to accept waste.

VI. Process for Review of Design Plans

For a landfill subject to the emission standards, the owner or operator must submit to the Department a Collection and Control Design Plan. This design plan must meet the requirements stated in Section 30.

As provided for in Section 30, the Department will review each submitted design plan and will, in writing, either approve it, disapprove it, or request that additional information be submitted.

VII. Compliance Schedules

The table below specifies the compliance schedule for existing municipal solid waste landfills in the State of Delaware.

Compliance Schedule for Existing Municipal Solid Waste Landfills	
State Plan Submittal to EPA	May 30, 2017
EPA approval of State Plan	Within 4 months of submittal to EPA
Final emission guideline compliance date	For NSWMC-2, CSWMC, and SSWMC, to be completed as expeditiously as possible but no later than 180 days from the effective date of Section 30

VIII. Public Participation

A public hearing was held on April 24, 2017 at 6:00 pm in the Department of Natural Resources and Environmental Control's office located at 100 W. Water Street, Suite 6A, Dover, DE. Affidavits from the Delaware State News and the Sunday News Journal, and copies of the notices as they appeared in those publications on March 12, 2017 advertising the public hearing are provided in APPENDIX C of this State Plan. A list of the public hearing attendees and other public noticing is also provided in APPENDIX C.

IX. Source Surveillance, Compliance Assurance, and Enforcement

The affected facilities will be subject to the operational standards, test methods and procedures, compliance provisions, monitoring of operations, reporting requirements, and recordkeeping requirements specified in Section 30.

The Department will submit annual reports to the EPA which detail the progress in the enforcement of the State Plan. The first progress report will be submitted to the EPA one year following the approval of the State Plan. The annual report will contain the following information:

1. Enforcement actions initiated against a designated facility during the reporting period,

2. Identification of the achievement of any increments of progress required by the State Plan during the reporting period,

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

4. Submission of additional emission data to update previous progress reports, and

5. Emission inventory data for any municipal solid waste landfill that has accepted waste after November 8, 1987, or that has additional design capacity available to accept waste and that was not in operation at the time of State Plan development but began operation during the reporting period.

Technical reports on all performance testing conducted on the designated facilities, complete with concurrently recorded control device operating data will be retained by the Department and a copy will be sent to the Environmental Protection Agency, Region III.

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APPENDIX A

Legal Authorities

Legal Authority	Links on the Delaware General Assembly website
7 DE Code Chapter 60 - Subchapter I. General Provisions	http://delcode.delaware.gov/title7/c060/sc01/index.shtml
7 DE Code Chapter 60 - Subchapter II. Powers and Duties of Secretary and Department	http://delcode.delaware.gov/title7/c060/sc02/index.shtml
7 DE Admin Code 1102 - Permits	http://regulations.delaware.gov/AdminCode/title7/1000/1100/1102.shtml#TopOfPage
7 DE Admin Code 1117 - Source Monitoring, Record Keeping And Reporting	http://regulations.delaware.gov/AdminCode/title7/1000/1100/1117.shtml#TopOfPage
7 DE Admin Code 1130 - Title V State Operating Permit Program	http://regulations.delaware.gov/AdminCode/title7/1000/1100/1130.shtml#TopOfPage

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APPENDIX B

40 CFR Part 60 Subpart XXX, as adopted in Section 30

Appendix B illustrates the changes being proposed in Section 30 of 7 DE Admin. Code 1120 to 40 CFR Part 60 Subpart XXX. The underline indicates additions being proposed to Subpart XXX and the strikeouts indicate deletions being proposed to Subpart XXX.

~~Subpart XXX —~~ 30.0 Standards of Performance for Municipal Solid Waste Landfills ~~That Commenced Construction, Reconstruction, or Modification After July 17, 2014~~ After July 11, 2017

§60.760 Applicability, designation of affected source, and delegation of authority.

(a) The provisions of this subpart apply to each municipal solid waste landfill, open or closed, that commenced construction, reconstruction, or modification after July 17, 2014 or that has accepted waste after November 8, 1987 or that has additional capacity available to accept waste. ~~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.~~

(b) The following authorities are retained by the Administrator and are not transferred to the state: §60.764(a)(5).

(c) Activities required by or conducted pursuant to a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Resource Conservation and Recovery Act (RCRA), or state remedial action are not considered construction, reconstruction, or modification for purposes of this subpart.

§60.761 Definitions.

As used in this subpart, all terms not defined herein 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 area means a separately lined area of an MSW landfill in which solid waste is no longer being placed. If additional solid waste is placed in that area of the landfill, that landfill area is no longer closed. The area must be separately lined to ensure that the landfill gas does not migrate between open and closed areas.

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 §60.762(b)(2)(i).

Corrective action analysis means a description of all reasonable interim and long-term measures, if any, that are available, and an explanation of why the selected corrective action(s) is/are the best alternative(s), including, but not limited to, considerations of cost effectiveness, technical feasibility, safety, and secondary impacts.

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.

Gust means the highest instantaneous wind speed that occurs over a 3-second running average.

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). Household waste does not include fully segregated yard waste. Segregated yard waste means vegetative matter resulting exclusively from the cutting of grass, the pruning and/or removal of bushes, shrubs, and trees, the weeding of gardens, and other landscaping maintenance activities. Household waste does not include construction, renovation, or demolition wastes, even if originating from a household.

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 chapter. 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 waste. 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.

Leachate recirculation means the practice of taking the leachate collected from the landfill and reapplying it to the landfill by any of one of a variety of methods, including pre-wetting of the waste, direct discharge into the working face, spraying, infiltration ponds, vertical injection wells, horizontal gravity distribution systems, and pressure distribution systems.

Modification means an increase in the permitted volume design capacity of the landfill 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.

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 §60.764.

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.

Root cause analysis means an assessment conducted through a process of investigation to determine the primary cause, and any other contributing causes, of positive pressure at a wellhead.

Segregated yard waste means vegetative matter resulting exclusively from the cutting of grass, the pruning and/or removal of bushes, shrubs, and trees, the weeding of gardens, and other landscaping maintenance activities.

Sludge means the term sludge as defined in 40 CFR 258.2.

Solid waste means the term solid waste as defined in 40 CFR 258.2.

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.

Treated landfill gas means landfill gas processed in a treatment system as defined in this subpart.

Treatment system means a system that filters, de-waters, and compresses landfill gas for sale or beneficial use.

Untreated landfill gas means any landfill gas that is not treated landfill gas.

§60.762 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 must submit an initial design capacity report to the ~~Administrator~~ Department as provided in §60.767(a). The landfill may calculate design capacity in either megagrams or cubic meters for comparison with the exemption values. Any density conversions must be documented and submitted with the report. For purposes of 7 **DE Admin. Code** 1130, Title V State Operating Permit Program, 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 7 **DE Admin. Code** 1130, provided it is not a major source as defined in 7 **DE Admin. Code** 1130. Submittal of the initial design capacity report fulfills the requirements of this subpart except as provided for in paragraphs (a)(1) and (2) of this section.

(1) The owner or operator must submit to the ~~Administrator~~ Department an amended design capacity report, as provided for in §60.767(a)(3).

(2) When an increase in the maximum design capacity of a landfill exempted from the provisions of §60.762(b) through §60.769 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 must comply with the provisions 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, must either comply with paragraph (b)(2) of this section or calculate an NMOC emission rate for the landfill using the procedures specified in §60.764. The NMOC emission rate must be recalculated annually, except as provided in §60.767(b)(1)(ii). 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~~ 7 **DE Admin. Code** 1130. When a landfill is closed, and either never needed control or meets the conditions for control system removal specified in §60.762(b)(2)(v), a 7 **DE Admin. Code** 1130 operating permit is no longer required.

(1) If the calculated NMOC emission rate is less than 34 megagrams per year, the owner or operator must:

(i) Submit an annual NMOC emission rate emission report to the ~~Administrator~~ Department, except as provided for in §60.767(b)(1)(ii); and

(ii) Recalculate the NMOC emission rate annually using the procedures specified in §60.764(a)(1) until such time as the calculated NMOC emission rate is equal to or greater than 34 megagrams per year,

or the landfill is closed.

(A) If the calculated NMOC emission rate, upon initial calculation or annual recalculation required in paragraph (b) of this section, is equal to or greater than 34 megagrams per year, the owner or operator must either: Comply with paragraph (b)(2) of this section; calculate NMOC emissions using the next higher tier in §60.764; or conduct a surface emission monitoring demonstration using the procedures specified in §60.764(a)(6).

(B) If the landfill is permanently closed, a closure report must be submitted to the ~~Administrator~~ Department as provided for in §60.767(e).

(2) If the calculated NMOC emission rate is equal to or greater than 34 megagrams per year using Tier 1, 2, or 3 procedures, the owner or operator must either:

(i) Calculated *NMOC Emission Rate.* Submit a collection and control system design plan prepared by a professional engineer to the ~~Administrator~~ Department within 1 year as specified in §60.767(c); calculate NMOC emissions using the next higher tier in §60.764; or conduct a surface emission monitoring demonstration using the procedures specified in §60.764(a)(6). The collection and control system must meet the requirements in paragraphs (b)(2)(ii) and (iii) of this section.

(ii) *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 in accordance with paragraph (b)(2)(ii)(A) or (B) of this section, whichever is applicable. ~~within 30 months after:~~

(A) *For MSW landfills that commenced construction, reconstruction, or modification on or after July 17, 2014.* The collection and control system must be started up in accordance with paragraph (b)(2)(ii)(A)(*1*) or (*2*) of this section, whichever is applicable. ~~The first annual report in which the NMOC emission rate equals or exceeds 34 megagrams per year, unless Tier 2 or Tier 3 sampling demonstrates that the NMOC emission rate is less than 34 megagrams per year, as specified in §60.767(c)(4); or~~

(1) Within 30 months of the first annual report in which the NMOC emission rate equals or exceeds 34 megagrams per year, unless Tier 2 or Tier 3 sampling demonstrates that the NMOC emission rate is less than 34 megagrams per year, as specified in §60.767(c)(4) or

(2) Within 30 months of the most recent NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year based on Tier 2, if the Tier 4 surface emissions monitoring shows a surface methane emission concentration of 500 parts per million methane or greater as specified in §60.767(c)(4)(iii).

(B) *For all other subject MSW landfills.* As expeditiously as practicable but not later than January 8, 2018. ~~The most recent NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year based on Tier 2, if the Tier 4 surface emissions monitoring shows a surface methane emission concentration of 500 parts per million methane or greater as specified in §60.767(c)(4)(iii).~~

(C) An active collection system must:

(*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 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 5 years or more if active; or 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.

(D) A passive collection system must:

(*1*) Comply with the provisions specified in paragraphs (b)(2)(ii)(C)(*1*), (*2*), and (*3*) 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 must be installed as required under 40 CFR 258.40.

(iii) *Control system.* 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) A non-enclosed flare designed and operated in accordance with the parameters established in §60.18 except as noted in §60.764(e); or

(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 must 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 §60.764(d). The performance test is not required for boilers and process heaters with design heat input capacities equal to or greater than 44 megawatts that burn landfill gas for compliance with this subpart.

(*1*) If a boiler or process heater is used as the control device, the landfill gas stream must be introduced into the flame zone.

(*2*) The control device must be operated within the parameter ranges established during the initial or most recent performance test. The operating parameters to be monitored are specified in §60.766;

(C) Route the collected gas to a treatment system that processes the collected gas for subsequent sale or beneficial use such as fuel for combustion, production of vehicle fuel, production of high-Btu gas for pipeline injection, or use as a raw material in a chemical manufacturing process. Venting of treated landfill gas to the ambient air is not allowed. If the treated landfill gas cannot be routed for subsequent sale or beneficial use, then the treated landfill gas must be controlled according to either paragraph (b)(2)(iii)(A) or (B) of this section.

(D) All emissions from any atmospheric vent from the gas treatment system are subject to the requirements of paragraph (b)(2)(iii)(A) or (B) of this section. For purposes of this subpart, atmospheric vents located on the condensate storage tank are not part of the treatment system and are exempt from the requirements of paragraph (b)(2)(iii)(A) or (B) of this section.

(iv) *Operation.* Operate the collection and control device installed to comply with this subpart in accordance with the provisions of §§60.763, 60.765 and 60.766.

(v) *Removal criteria.* The collection and control system may be capped, removed, or decommissioned if the following criteria are met:

(A) The landfill is a closed landfill (as defined in §60.761). A closure report must be submitted to the ~~Administrator~~ Department as provided in §60.767(e).

(B) The collection and control system has been in operation a minimum of 15 years or the landfill owner or operator demonstrates that the GCCS will be unable to operate for 15 years due to declining gas flow.

(C) Following the procedures specified in §60.764(b), the calculated NMOC emission rate at the landfill is less than 34 megagrams per year on three successive test dates. The test dates must 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 Clean Air Act, the owner or operator of an 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~~ 7 **DE Admin. Code** 1130, 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 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~~ 7 **DE Admin. Code** 1130, becomes subject to the requirements of ~~§70.5(a)(1)(i) or §71.5(a)(1)(i) of this chapter~~ paragraph 5.1.1 of 7 **DE Admin. Code** 1130, regardless of when the design capacity report is actually submitted, no later than:

(1) ~~November 28, 2016 for MSW landfills that commenced construction, modification, or reconstruction after July 17, 2014 but before August 29, 2016;~~ Ninety days after the date of commenced construction, modification, or reconstruction for MSW landfills that commenced construction, modification, or reconstruction on or after July 17, 2014 or

(2) ~~Niney days after the date of commenced construction, modification, or reconstruction for MSW landfills that commence construction, modification, or reconstruction after August 29, 2016~~ January 8, 2018 for all other subject MSW landfills.

(d) When an MSW landfill subject to this subpart is closed as defined in this subpart, 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.

§60.763 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 §60.762(b)(2) must:

(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 must record instances when positive pressure occurs in efforts to avoid a fire. These records must be submitted with the annual reports as provided in §60.767(g)(1);

(2) Use of a geomembrane or synthetic cover. The owner or operator must 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 must be approved by the ~~Administrator~~ Department as specified in §60.767(c);

(c) Operate each interior wellhead in the collection system with a landfill gas temperature less than 55 degrees Celsius (131 degrees Fahrenheit). The owner or operator may establish a higher operating temperature value at a particular well. A higher operating value demonstration must be submitted to the ~~Administrator~~ Department for approval and must include supporting data demonstrating that the elevated parameter neither causes fires nor significantly inhibits anaerobic decomposition by killing methanogens. The demonstration must satisfy both criteria in order to be approved (*i.e.,* neither causing fires nor killing methanogens is acceptable).

(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 must conduct surface testing using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in §60.765(d). The owner or operator must conduct surface testing around the perimeter of the collection area and along a pattern that traverses the landfill at no more than 30-meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover and all cover penetrations. Thus, the owner or operator must monitor any openings that are within an area of the landfill where waste has been placed and a gas collection system is required. The owner or operator may establish an alternative traversing pattern that ensures equivalent coverage. A surface monitoring design plan must 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 §60.762(b)(2)(iii). In the event the collection or control system is not operating, the gas mover system must be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere must be closed within 1 hour of the collection or control system not operating; and

(f) Operate the control 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 must be taken as specified in §60.765(a)(3) and (5) or §60.765(c). If

corrective actions are taken, as specified in §60.765, the monitored exceedance is not a violation of the operational requirements in this section.

§60.764 Test methods and procedures.

(a)(1) *NMOC Emission Rate.* The landfill owner or operator must calculate the NMOC emission rate using either Equation 1 provided in paragraph (a)(1)(i) of this section or Equation 2 provided in paragraph (a)(1)(ii) of this section. Both Equation 1 and Equation 2 may be used if the actual year-to-year solid waste acceptance rate is known, as specified in paragraph (a)(1)(i) of this section, 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) of this section, for part of the life of the landfill. The values to be used in both Equation 1 and Equation 2 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 30-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.

(i)(A) Equation 1 must be used if the actual year-to-year solid waste acceptance rate is known.

$$M_{NMOC} = \sum_{i=1}^{n} 2\,k\,L_o M_i \left(e^{-kt_i}\right)\left(C_{NMOC}\right)\left(3.6\times10^{-9}\right) \qquad \text{(Eq. 1)}$$

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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.

(B) 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 documentation of the nature and amount of such wastes is maintained.

(ii)(A) Equation 2 must be used if the actual year-to-year solid waste acceptance rate is unknown.

$$M_{NMOC} = 2L_oR\,(e^{-kc}-e^{-kt})\,C_{NMOC}(3.6 \times 10^{-9}) \qquad \text{(Eq.2)}$$

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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 = 0 and e^{-kc} = 1.

3.6×10^{-9} = Conversion factor.

(B) 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 of R, if documentation of the nature and amount of such wastes is maintained.

(2) *Tier 1.* The owner or operator must compare the calculated NMOC mass emission rate to the standard of 34 megagrams per year.

(i) If the NMOC emission rate calculated in paragraph (a)(1) of this section is less than 34 megagrams per year, then the landfill owner or operator must submit an NMOC emission rate report according to §60.767(b), and must recalculate the NMOC mass emission rate annually as required under

§60.762(b).

(ii) If the calculated NMOC emission rate as calculated in paragraph (a)(1) of this section is equal to or greater than 34 megagrams per year, then the landfill owner must either:

(A) Submit a gas collection and control system design plan within 1 year as specified in §60.767(c) and install and operate a gas collection and control system within 30 months according to §60.762(b)(2)(ii) and (iii);

(B) Determine a site-specific NMOC concentration and recalculate the NMOC emission rate using the Tier 2 procedures provided in paragraph (a)(3) of this section; or

(C) Determine a site-specific methane generation rate constant and recalculate the NMOC emission rate using the Tier 3 procedures provided in paragraph (a)(4) of this section.

(3) *Tier 2.* The landfill owner or operator must determine the site-specific NMOC concentration using the following sampling procedure. The landfill owner or operator must install at least two sample probes per hectare, evenly distributed over the 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 probes should be evenly distributed across the sample area. The sample probes should be located to avoid known areas of nondegradable solid waste. The owner or operator must 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. 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 alternative 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 more than the required number of samples are taken, all samples must be used in the analysis. The landfill owner or operator must divide the NMOC concentration from Method 25 or 25C of appendix A of this part by six to convert from C_{NMOC} as carbon to C_{NMOC} 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 as the two sampling probe per hectare requirement. For active collection systems, samples may be collected from the common header pipe. The sample location on the common header pipe must be before any gas moving, condensate removal, or treatment system equipment. For active collection systems, a minimum of three samples must be collected from the header pipe.

(i) Within 60 days after the date of completing each performance test (as defined in §60.8), the owner or operator must submit the results according to §60.767(i)(1).

(ii) The landfill owner or operator must recalculate the NMOC mass emission rate using Equation 1 or Equation 2 provided in paragraph (a)(1)(i) or (a)(1)(ii) of this section and using the average site-specific NMOC concentration from the collected samples instead of the default value provided in paragraph (a)(1) of this section.

(iii) If the resulting NMOC mass emission rate is less than 34 megagrams per year, then the owner or operator must submit a periodic estimate of NMOC emissions in an NMOC emission rate report according to §60.767(b)(1), and must recalculate the NMOC mass emission rate annually as required under §60.762(b). The site-specific NMOC concentration must be retested every 5 years using the methods specified in this section.

(iv) If the NMOC mass emission rate as calculated using the Tier 2 site-specific NMOC concentration is equal to or greater than 34 megagrams per year, the landfill owner or operator must either:

(A) Submit a gas collection and control system design plan within 1 year as specified in §60.767(c) and install and operate a gas collection and control system within 30 months according to §60.762(b)(2)(ii) and (iii);

(B) Determine a site-specific methane generation rate constant and recalculate the NMOC emission rate using the site-specific methane generation rate using the Tier 3 procedures specified in paragraph (a)(4) of this section; or

(C) Conduct a surface emission monitoring demonstration using the Tier 4 procedures specified in

paragraph (a)(6) of this section.

(4) *Tier 3.* The site-specific methane generation rate constant must be determined using the procedures provided in Method 2E of appendix A of this part. The landfill owner or operator must estimate the NMOC mass emission rate using Equation 1 or Equation 2 in paragraph (a)(1)(i) or (ii) of this section and using a site-specific methane generation rate constant, 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 must compare the resulting NMOC mass emission rate to the standard of 34 megagrams per year.

(i) If the NMOC mass emission rate as calculated using the Tier 2 site-specific NMOC concentration and Tier 3 site-specific methane generation rate is equal to or greater than 34 megagrams per year, the owner or operator must either:

(A) Submit a gas collection and control system design plan within 1 year as specified in §60.767(c) and install and operate a gas collection and control system within 30 months according to §60.762(b)(2)(ii) and (iii); or

(B) Conduct a surface emission monitoring demonstration using the Tier 4 procedures specified in paragraph (a)(6) of this section.

(ii) If the NMOC mass emission rate is less than 34 megagrams per year, then the owner or operator must recalculate the NMOC mass emission rate annually using Equation 1 or Equation 2 in paragraph (a)(1) of this section and using the site-specific Tier 2 NMOC concentration and Tier 3 methane generation rate constant and submit a periodic NMOC emission rate report as provided in §60.767(b)(1). The calculation of the methane generation rate constant is performed only once, and the value obtained from this test must be used in all subsequent annual NMOC emission rate calculations.

(5) *Other methods.* The owner or operator may use other methods to determine the NMOC concentration or a site-specific methane generation rate constant as an alternative to the methods required in paragraphs (a)(3) and (4) of this section if the method has been approved by the Administrator.

(6) *Tier 4.* The landfill owner or operator must demonstrate that surface methane emissions are below 500 parts per million. Surface emission monitoring must be conducted on a quarterly basis using the following procedures. Tier 4 is allowed only if the landfill owner or operator can demonstrate that NMOC emissions are greater than or equal to 34 Mg/yr but less than 50 Mg/yr using Tier 1 or Tier 2. If both Tier 1 and Tier 2 indicate NMOC emissions are 50 Mg/yr or greater, then Tier 4 cannot be used. In addition, the landfill must meet the criteria in paragraph (a)(6)(viii) of this section.

(i) The owner or operator must measure surface concentrations of methane along the entire perimeter of the landfill and along a pattern that traverses the landfill at no more than 30-meter intervals using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in §60.765(d).

(ii) The background concentration must be determined by moving the probe inlet upwind and downwind at least 30 meters from the waste mass boundary of the landfill.

(iii) Surface emission monitoring must be performed in accordance with section 8.3.1 of Method 21 of appendix A of this part, except that the probe inlet must be placed no more than 5 centimeters above the landfill surface; the constant measurement of distance above the surface should be based on a mechanical device such as with a wheel on a pole, except as described in paragraph (a)(6)(iii)(A) of this section.

(A) The owner or operator must use a wind barrier, similar to a funnel, when onsite average wind speed exceeds 4 miles per hour or 2 meters per second or gust exceeding 10 miles per hour. Average on-site wind speed must also be determined in an open area at 5-minute intervals using an on-site anemometer with a continuous recorder and data logger for the entire duration of the monitoring event. The wind barrier must surround the SEM monitor, and must be placed on the ground, to ensure wind turbulence is blocked. SEM cannot be conducted if average wind speed exceeds 25 miles per hour.

(B) Landfill surface areas where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover, and all cover penetrations must also be monitored using a device meeting the specifications provided in §60.765(d).

(iv) Each owner or operator seeking to comply with the Tier 4 provisions in paragraph (a)(6) of this section must maintain records of surface emission monitoring as provided in §60.768(g) and submit a Tier 4 surface emissions report as provided in §60.767(c)(4)(iii).

(v) If there is any measured concentration of methane of 500 parts per million or greater from the surface of the landfill, the owner or operator must submit a gas collection and control system design plan within 1 year of the first measured concentration of methane of 500 parts per million or greater from the surface of the landfill according to §60.767(c) and install and operate a gas collection and control system according to §60.762(b)(2)(ii) and (iii) within 30 months of the most recent NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year based on Tier 2.

(vi) If after four consecutive quarterly monitoring periods at a landfill, other than a closed landfill, there is no measured concentration of methane of 500 parts per million or greater from the surface of the landfill, the owner or operator must continue quarterly surface emission monitoring using the methods specified in this section.

(vii) If after four consecutive quarterly monitoring periods at a closed landfill there is no measured concentration of methane of 500 parts per million or greater from the surface of the landfill, the owner or operator must conduct annual surface emission monitoring using the methods specified in this section.

(viii) If a landfill has installed and operates a collection and control system that is not required by this subpart, then the collection and control system must meet the following criteria:

(A) The gas collection and control system must have operated for 6,570 out of 8,760 hours preceding the Tier 4 surface emissions monitoring demonstration.

(B) During the Tier 4 surface emissions monitoring demonstration, the gas collection and control system must operate as it normally would to collect and control as much landfill gas as possible.

(b) After the installation and startup of a collection and control system in compliance with this subpart, the owner or operator must calculate the NMOC emission rate for purposes of determining when the system can be capped, removed or decommissioned as provided in §60.762(b)(2)(v), using Equation 3:

$$M_{NMOC} = 1.89 \times 10^{-3} Q_{LFG} C_{NMOC} \qquad \text{(Eq. 3)}$$

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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}, must be determined by measuring the total landfill gas flow rate at the common header pipe that leads to the control system using a gas flow measuring device calibrated according to the provisions of section 10 of Method 2E of appendix A of this part.

(2) The average NMOC concentration, C_{NMOC}, must 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 25 or Method 25C. The sample location on the common header pipe must be before any condensate removal or other gas refining units. The landfill owner or operator must divide the NMOC concentration from Method 25 or 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~~ Department.

(i) Within 60 days after the date of completing each performance test (as defined in §60.8), the owner or operator must submit the results of the performance test, including any associated fuel analyses, according to §60.767(i)(1).

(ii) [Reserved]

(c) When calculating emissions for Prevention of Significant Deterioration purposes, the owner or operator of each MSW landfill subject to the provisions of this subpart must estimate the NMOC emission rate for comparison to the Prevention of Significant Deterioration major source and significance levels in §§51.166 or 52.21 of this chapter using Compilation of Air Pollutant Emission Factors, Volume I:

Stationary Point and Area Sources (AP-42) or other approved measurement procedures.

(d) For the performance test required in §60.762(b)(2)(iii)(B), Method 25 or 25C (Method 25C may be used at the inlet only) of appendix A of this part must be used to determine compliance with the 98 weight-percent efficiency or the 20 parts per million by volume outlet concentration level, unless another method to demonstrate compliance has been approved by the ~~Administrator~~ Department as provided by §60.767(c)(2). Method 3, 3A, or 3C must 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. Method 18 may be used in conjunction with Method 25A on a limited basis (compound specific, *e.g.,* methane) or Method 3C may be used to determine methane. The methane as carbon should be subtracted from the Method 25A total hydrocarbon value as carbon to give NMOC concentration as carbon. The landowner or operator must divide the NMOC concentration as carbon by 6 to convert from the CNMOC as carbon to CNMOC as hexane. Equation 4 must be used to calculate efficiency:

$$\text{Control Efficiency} = (NMOC_{in} - NMOC_{out})/(NMOC_{in}) \qquad \text{(Eq.4)}$$

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Where:

$NMOC_{in}$ = Mass of NMOC entering control device.

$NMOC_{out}$ = Mass of NMOC exiting control device.

(e) For the performance test required in §60.762(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 components, 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).

(1) Within 60 days after the date of completing each performance test (as defined in §60.8), the owner or operator must submit the results of the performance tests, including any associated fuel analyses, required by §60.764(b) or (d) according to §60.767(i)(1).

(2) [Reserved]

§60.765 Compliance provisions.

(a) Except as provided in §60.767(c)(2), the specified methods in paragraphs (a)(1) through (6) of this section must be used to determine whether the gas collection system is in compliance with §60.762(b)(2)(ii).

(1) For the purposes of calculating the maximum expected gas generation flow rate from the landfill to determine compliance with §60.762(b)(2)(ii)(C)(*1*), either Equation 5 or Equation 6 must be used. The methane generation rate constant (k) and methane generation potential (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~~ Department. If k has been determined as specified in §60.764(a)(4), the value of k determined from the test must be used. A value of no more than 15 years must 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:

$$Q_m = 2L_oR\ (e^{-kc} - e^{-kt}) \qquad \text{(Eq. 5)}$$

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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 = 0 and e^{-kc} = 1).

(ii) For sites with known year-to-year solid waste acceptance rate:

$$Q_M = \sum_{i=1}^{n} 2kL_o M_i (e^{-kt_i}) \qquad \text{(Eq. 6)}$$

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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, Equation 5 or Equation 6 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 Equation 5 or Equation 6 in paragraphs (a)(1)(i) or (ii) of this section or other methods must 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 §60.762(b)(2)(ii)(C)(*2*), the owner or operator must design a system of vertical wells, horizontal collectors, or other collection devices, satisfactory to the ~~Administrator~~ Department, 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 §60.762(b)(2)(ii)(C)(*3*), the owner or operator must measure gauge pressure in the gas collection header applied to each individual well, monthly. If a positive pressure exists, action must be initiated to correct the exceedance within 5 calendar days, except for the three conditions allowed under §60.763(b). Any attempted corrective measure must not cause exceedances of other operational or performance standards.

(i) If negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement of positive pressure, the owner or operator must conduct a root cause analysis and correct the exceedance as soon as practicable, but no later than 60 days after positive pressure was first measured. The owner or operator must keep records according to §60.768(e)(3).

(ii) If corrective actions cannot be fully implemented within 60 days following the positive pressure measurement for which the root cause analysis was required, the owner or operator must also conduct a corrective action analysis and develop an implementation schedule to complete the corrective action(s) as soon as practicable, but no more than 120 days following the positive pressure measurement. The owner or operator must submit the items listed in §60.767(g)(7) as part of the next annual report. The owner or operator must keep records according to §60.768(e)(4).

(iii) If corrective action is expected to take longer than 120 days to complete after the initial exceedance, the owner or operator must submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the ~~Administrator~~ Department, according to §60.767(g)(7) and §60.767(j). The owner or operator must keep records according to §60.768(e)(5).

(4) [Reserved]

(5) For the purpose of identifying whether excess air infiltration into the landfill is occurring, the owner or operator must monitor each well monthly for temperature as provided in §60.763(c). If a well exceeds the operating parameter for temperature, action must be initiated to correct the exceedance within 5 calendar days. Any attempted corrective measure must not cause exceedances of other operational or performance standards.

(i) If a landfill gas temperature less than 55 degrees Celsius (131 degrees Fahrenheit) cannot be achieved within 15 calendar days of the first measurement of landfill gas temperature greater than 55 degrees Celsius (131 degrees Fahrenheit), the owner or operator must conduct a root cause analysis and

correct the exceedance as soon as practicable, but no later than 60 days after a landfill gas temperature greater than 55 degrees Celsius (131 degrees Fahrenheit) was first measured. The owner or operator must keep records according to §60.768(e)(3).

(ii) If corrective actions cannot be fully implemented within 60 days following the positive pressure measurement for which the root cause analysis was required, the owner or operator must also conduct a corrective action analysis and develop an implementation schedule to complete the corrective action(s) as soon as practicable, but no more than 120 days following the measurement of landfill gas temperature greater than 55 degrees Celsius (131 degrees Fahrenheit). The owner or operator must submit the items listed in §60.767(g)(7) as part of the next annual report. The owner or operator must keep records according to §60.768(e)(4).

(iii) If corrective action is expected to take longer than 120 days to complete after the initial exceedance, the owner or operator must submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the ~~Administrator~~ Department, according to §60.767(g)(7) and §60.767(j). The owner or operator must keep records according to §60.768(e)(5).

(6) An owner or operator seeking to demonstrate compliance with §60.762(b)(2)(ii)(C)(*4*) through the use of a collection system not conforming to the specifications provided in §60.769 must provide information satisfactory to the ~~Administrator~~ Department as specified in §60.767(c)(3) demonstrating that off-site migration is being controlled.

(b) For purposes of compliance with §60.763(a), each owner or operator of a controlled landfill must place each well or design component as specified in the approved design plan as provided in §60.767(c). Each well must be installed no later than 60 days after the date on which the initial solid waste has been in place for a period of:

(1) Five (5) years or more if active; or

(2) Two (2) years or more if closed or at final grade.

(c) The following procedures must be used for compliance with the surface methane operational standard as provided in §60.763(d).

(1) After installation and startup of the gas collection system, the owner or operator must 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 must 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 must be performed in accordance with section 8.3.1 of Method 21 of appendix A of this part, except that the probe inlet must be placed within 5 to 10 centimeters of the ground. Monitoring must be performed during typical meteorological conditions.

(4) Any reading of 500 parts per million or more above background at any location must be recorded as a monitored exceedance and the actions specified in paragraphs (c)(4)(i) through (v) of this section must be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements of §60.763(d).

(i) The location of each monitored exceedance must be marked and the location and concentration recorded.

(ii) Cover maintenance or adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of each exceedance must be made and the location must 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 must be taken and the location must 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 must be taken, and no further monitoring of that location is required until the action specified in paragraph (c)(4)(v) of this section 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 must be re-monitored 1 month from the initial exceedance. If the 1-month re-monitoring 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 re-monitoring shows an exceedance, the actions specified in paragraph (c)(4)(iii) or (v) of this section must 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 must 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~~ Department for approval.

(5) The owner or operator must 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 or §60.764(a)(6) must comply with the following instrumentation specifications and procedures for surface emission monitoring devices:

(1) The portable analyzer must meet the instrument specifications provided in section 6 of Method 21 of appendix A of this part, except that "methane" replaces all references to "VOC".

(2) The calibration gas must be methane, diluted to a nominal concentration of 500 parts per million in air.

(3) To meet the performance evaluation requirements in section 8.1 of Method 21 of appendix A of this part, the instrument evaluation procedures of section 8.1 of Method 21 of appendix A of this part must be used.

(4) The calibration procedures provided in sections 8 and 10 of Method 21 of appendix A of this part must be followed immediately before commencing a surface monitoring survey.

(e) The provisions of this subpart apply at all times, including periods of startup, shutdown or malfunction. During periods of startup, shutdown, and malfunction, you must comply with the work practice specified in §60.763(e) in lieu of the compliance provisions in §60.765.

§60.766 Monitoring of operations.

Except as provided in §60.767(c)(2):

(a) Each owner or operator seeking to comply with §60.762(b)(2)(ii)(C) for an active gas collection system must 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 §60.765(a)(3); and

(2) Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as follows:

(i) The nitrogen level must be determined using Method 3C, unless an alternative test method is established as allowed by §60.767(c)(2).

(ii) Unless an alternative test method is established as allowed by §60.767(c)(2), the oxygen level must be determined by an oxygen meter using Method 3A, 3C, or ASTM D6522-11 (incorporated by reference, see §60.17). Determine the oxygen level by an oxygen meter using Method 3A, 3C, or ASTM D6522-11 (if sample location is prior to combustion) except that:

(A) The span must be set between 10 and 12 percent oxygen;

(B) A data recorder is not required;

(C) Only two calibration gases are required, a zero and span;

(D) A calibration error check is not required;

(E) The allowable sample bias, zero drift, and calibration drift are ±10 percent.

(iii) A portable gas composition analyzer may be used to monitor the oxygen levels provided:

(A) The analyzer is calibrated; and

(B) The analyzer meets all quality assurance and quality control requirements for Method 3A or ASTM D6522-11 (incorporated by reference, see §60.17).

(3) Monitor temperature of the landfill gas on a monthly basis as provided in §60.765(a)(5). The

temperature measuring device must be calibrated annually using the procedure in 40 CFR part 60, appendix A-1, Method 2, Section 10.3.

(b) Each owner or operator seeking to comply with §60.762(b)(2)(iii) using an enclosed combustor must 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 a minimum accuracy of ±1 percent of the temperature being measured expressed in degrees Celsius or ±0.5 degrees Celsius, whichever is greater. A temperature monitoring device is not required for boilers or process heaters with design heat input capacity equal to or greater than 44 megawatts.

(2) A device that records flow to the control device and bypass of the control device (if applicable). The owner or operator must:

(i) Install, calibrate, and maintain a gas flow rate measuring device that must record the flow to the control device at least every 15 minutes; and

(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 must 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 §60.762(b)(2)(iii) using a non-enclosed flare must 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 the flare and bypass of the flare (if applicable). The owner or operator must:

(i) Install, calibrate, and maintain a gas flow rate measuring device that records the flow to the control device at least every 15 minutes; and

(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 must 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 §60.762(b)(2)(iii) using a device other than a non-enclosed flare or an enclosed combustor or a treatment system must provide information satisfactory to the ~~Administrator~~ Department as provided in §60.767(c)(2) describing the operation of the control device, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The ~~Administrator~~ Department must review the information and either approve it, or request that additional information be submitted. The ~~Administrator~~ Department may specify additional appropriate monitoring procedures.

(e) Each owner or operator seeking to install a collection system that does not meet the specifications in §60.769 or seeking to monitor alternative parameters to those required by §§60.763 through 60.766 must provide information satisfactory to the ~~Administrator~~ Department as provided in §60.767(c)(2) and (3) describing the design and operation of the collection system, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The ~~Administrator~~ Department may specify additional appropriate monitoring procedures.

(f) Each owner or operator seeking to demonstrate compliance with the 500 parts per million surface methane operational standard in §60.763(d) must monitor surface concentrations of methane according to the procedures in §60.765(c) and the instrument specifications in §60.765(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.

(g) Each owner or operator seeking to demonstrate compliance with §60.762(b)(2)(iii) using a landfill gas treatment system must maintain and operate all monitoring systems associated with the treatment system in accordance with the site-specific treatment system monitoring plan required in §60.768(b)(5)(ii)

and must calibrate, maintain, and operate according to the manufacturer's specifications a device that records flow to the treatment system and bypass of the treatment system (if applicable). The owner or operator must:

(1) Install, calibrate, and maintain a gas flow rate measuring device that records the flow to the treatment system at least every 15 minutes; and

(2) 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 must 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.

(h) The monitoring requirements of paragraphs (b), (c) (d) and (g) of this section apply at all times the affected source is operating, except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. You are required to complete monitoring system repairs in response to monitoring system malfunctions and to return the monitoring system to operation as expeditiously as practicable.

§60.767 Reporting requirements.

(a) *Design capacity report.* Each owner or operator subject to the requirements of this subpart must submit an initial design capacity report to the ~~Administrator~~ Department.

(1) *Submission.* The initial design capacity report fulfills the requirements of the notification of the date construction is commenced as required by §60.7(a)(1) and must be submitted no later than:

(i) ~~November 28, 2016, for landfills that commenced construction, modification, or reconstruction after July 17, 2014 but before August 29, 2016;~~ Ninety days after the date of commenced construction, modification, or reconstruction for MSW landfills that commenced construction, modification, or reconstruction on or after July 17, 2014 or

(ii) ~~Ninety days after the date of commenced construction, modification, or reconstruction for landfills that commence construction, modification, or reconstruction after August 29, 2016~~ The date specified in a State construction or operating permit, if applicable, or January 8, 2018, whichever is earlier, for all other subject MSW landfills.

(2) *Initial design capacity report.* The initial design capacity report must 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 must be calculated using good engineering practices. The calculations must be provided, along with the relevant parameters as part of the report. The landfill may calculate design capacity in either megagrams or cubic meters for comparison with the exemption values. 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. Any density conversions must be documented and submitted with the design capacity report. The ~~state, tribal, local agency or Administrator~~ Department may request other reasonable information as may be necessary to verify the maximum design capacity of the landfill.

(3) *Amended design capacity report.* An amended design capacity report must be submitted to the ~~Administrator~~ Department 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 meet or exceed 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 §60.768(f).

(b) *NMOC emission rate report.* Each owner or operator subject to the requirements of this subpart must submit an NMOC emission rate report following the procedure specified in paragraph (i)(2) of this section to the ~~Administrator~~ Department initially and annually thereafter, except as provided for in paragraph (b)(1)(ii) of this section. The ~~Administrator~~ Department may request such additional information as may be necessary to verify the reported NMOC emission rate.

(1) The NMOC emission rate report must contain an annual or 5-year estimate of the NMOC emission rate calculated using the formula and procedures provided in §60.764(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 must be submitted no later than indicated in paragraphs (b)(1)(i)(A) and (B) of this section. Subsequent NMOC emission rate reports must be submitted annually thereafter, except as provided for in paragraph (b)(1)(ii) of this section.

(A) ~~November 28, 2016, for landfills that commenced construction, modification, or reconstruction after July 17, 2014, but before August 29, 2016,~~ Ninety days after the date of commenced construction, modification, or reconstruction for MSW landfills that commenced construction, modification, or reconstruction on or after July 17, 2014 or

(B) ~~Ninety days after the date of commenced construction, modification, or reconstruction for landfills that commence construction, modification, or reconstruction after August 29, 2016~~ January 8, 2018 for all other subject MSW landfills.

(ii) If the estimated NMOC emission rate as reported in the annual report to the ~~Administrator~~ Department is less than 34 megagrams per year in each of the next 5 consecutive years, the owner or operator may elect to submit, following the procedure specified in paragraph (i)(2) of this section, an estimate of the NMOC emission rate for the next 5-year period in lieu of the annual report. This estimate must 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 must be provided to the ~~Administrator~~ Department. This estimate must 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 must be submitted to the ~~Administrator~~ Department. The revised estimate must 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 must 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 to submit an NMOC emission rate report, after installing a collection and control system that complies with §60.762(b)(2), during such time as the collection and control system is in operation and in compliance with §§60.763 and 60.765.

(c) *Collection and control system design plan.* Each owner or operator subject to the provisions of §60.762(b)(2) must submit a collection and control system design plan to the ~~Administrator~~ Department for approval according to the schedule in paragraph (c)(4) of this section. The collection and control system design plan must be prepared and approved by a professional engineer and must meet the following requirements:

(1) The collection and control system as described in the design plan must meet the design requirements in §60.762(b)(2).

(2) The collection and control system design plan must include any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions of §§60.763 through 60.768 proposed by the owner or operator.

(3) The collection and control system design plan must either conform with specifications for active collection systems in §60.769 or include a demonstration to the ~~Administrator~~ Department's satisfaction of the sufficiency of the alternative provisions to §60.769.

(4) 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~~ Department for approval 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:

(i) If the owner or operator elects to recalculate the NMOC emission rate after Tier 2 NMOC sampling and analysis as provided in §60.764(a)(3) and the resulting rate is less than 34 megagrams per year, annual periodic reporting must be resumed, using the Tier 2 determined site-specific NMOC concentration, until the calculated emission rate is equal to or greater than 34 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, must be submitted, following the procedures in paragraph (i)(2) of this section, within 180 days of the first calculated exceedance of 34 megagrams per year.

(ii) 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 §60.764(a)(4), and the resulting NMOC emission rate is less than 34 Mg/yr, annual periodic reporting must be resumed. The resulting site-specific methane generation rate constant k must 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 §60.764(a)(4) and the resulting site-specific methane generation rate constant k must be submitted, following the procedure specified in paragraph (i)(2) of this section, to the ~~Administrator~~ Department within 1 year of the first calculated emission rate equaling or exceeding 34 megagrams per year.

(iii) If the owner or operator elects to demonstrate that site-specific surface methane emissions are below 500 parts per million methane, based on the provisions of §60.764(a)(6), then the owner or operator must submit annually a Tier 4 surface emissions report as specified in this paragraph following the procedure specified in paragraph (i)(2) of this section until a surface emissions readings of 500 parts per million methane or greater is found. If the Tier 4 surface emissions report shows no surface emissions readings of 500 parts per million methane or greater for four consecutive quarters at a closed landfill, then the landfill owner or operator may reduce Tier 4 monitoring from a quarterly to an annual frequency. The ~~Administrator~~ Department may request such additional information as may be necessary to verify the reported instantaneous surface emission readings. The Tier 4 surface emissions report must clearly identify the location, date and time (to nearest second), average wind speeds including wind gusts, and reading (in parts per million) of any value 500 parts per million methane or greater, other than non-repeatable, momentary readings. For location, you must determine the latitude and longitude coordinates using an instrument with an accuracy of at least 4 meters. The coordinates must be in decimal degrees with at least five decimal places. The Tier 4 surface emission report must also include the results of the most recent Tier 1 and Tier 2 results in order to verify that the landfill does not exceed 50 Mg/yr of NMOC.

(A) The initial Tier 4 surface emissions report must be submitted annually, starting within 30 days of completing the fourth quarter of Tier 4 surface emissions monitoring that demonstrates that site-specific surface methane emissions are below 500 parts per million methane, and following the procedure specified in paragraph (i)(2) of this section.

(B) The Tier 4 surface emissions report must be submitted within 1 year of the first measured surface exceedance of 500 parts per million methane, following the procedure specified in paragraph (i)(2) of this section.

(5) The landfill owner or operator must notify the ~~Administrator~~ Department that the design plan is completed and submit a copy of the plan's signature page. The ~~Administrator~~ Department has 90 days to decide whether the design plan should be submitted for review. If the ~~Administrator~~ Department chooses to review the plan, the approval process continues as described in paragraph (c)(6) of this section. However, if the ~~Administrator~~ Department indicates that submission is not required or does not respond within 90 days, the landfill owner or operator can continue to implement the plan with the recognition that the owner or operator is proceeding at their own risk. In the event that the design plan is required to be modified to obtain approval, the owner or operator must take any steps necessary to conform any prior actions to the approved design plan and any failure to do so could result in an enforcement action.

(6) Upon receipt of an initial or revised design plan, the ~~Administrator~~ Department must review the information submitted under paragraphs (c)(1) through (3) 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. If the ~~Administrator~~ Department 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.

(7) If the owner or operator chooses to demonstrate compliance with the emission control requirements of this subpart using a treatment system as defined in this subpart, then the owner or operator must prepare a site-specific treatment system monitoring plan as specified in §60.768(b)(5).

(d) *Revised design plan.* The owner or operator who has already been required to submit a design plan under paragraph (c) of this section must submit a revised design plan to the ~~Administrator~~ Department for approval as follows:

(1) At least 90 days before expanding operations to an area not covered by the previously approved design plan.

(2) Prior to installing or expanding the gas collection system in a way that is not consistent with the design plan that was submitted to the ~~Administrator~~ Department according to paragraph (c) of this section.

(e) *Closure report.* Each owner or operator of a controlled landfill must submit a closure report to the ~~Administrator~~ Department within 30 days of waste acceptance cessation. The ~~Administrator~~ Department 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~~ Department, no additional wastes may be placed into the landfill without filing a notification of modification as described under §60.7(a)(4).

(f) *Equipment removal report.* Each owner or operator of a controlled landfill must submit an equipment removal report to the ~~Administrator~~ Department 30 days prior to removal or cessation of operation of the control equipment.

(1) The equipment removal report must contain all of the following items:

(i) A copy of the closure report submitted in accordance with paragraph (e) of this section;

(ii) A copy of the initial performance test report demonstrating that the 15-year minimum control period has expired, unless the report of the results of the performance test has been submitted to the EPA via the EPA's CDX, or information that demonstrates that the GCCS will be unable to operate for 15 years due to declining gas flows. In the equipment removal report, the process unit(s) tested, the pollutant(s) tested, and the date that such performance test was conducted may be submitted in lieu of the performance test report if the report has been previously submitted to the EPA's CDX; and

(iii) Dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 34 megagrams or greater of NMOC per year, unless the NMOC emission rate reports have been submitted to the EPA via the EPA's CDX. If the NMOC emission rate reports have been previously submitted to the EPA's CDX, a statement that the NMOC emission rate reports have been submitted electronically and the dates that the reports were submitted to the EPA's CDX may be submitted in the equipment removal report in lieu of the NMOC emission rate reports.

(2) The ~~Administrator~~ Department may request such additional information as may be necessary to verify that all of the conditions for removal in §60.762(b)(2)(v) have been met.

(g) *Annual report.* The owner or operator of a landfill seeking to comply with §60.762(b)(2) using an active collection system designed in accordance with §60.762(b)(2)(ii) must submit to the ~~Administrator~~ Department, following the procedure specified in paragraph (i)(2) of this section, annual reports of the recorded information in paragraphs (g)(1) through (7) of this section. The initial annual report must be submitted within 180 days of installation and startup of the collection and control system, and must include the initial performance test report required under §60.8, as applicable, unless the report of the results of the performance test has been submitted to the EPA via the EPA's CDX. In the initial annual report, the process unit(s) tested, the pollutant(s) tested, and the date that such performance test was conducted may be submitted in lieu of the performance test report if the report has been previously submitted to the EPA's CDX. For enclosed combustion devices and flares, reportable exceedances are defined under §60.768(c).

(1) Value and length of time for exceedance of applicable parameters monitored under §60.766(a), (b), (c), (d), and (g).

(2) Description and duration of all periods when the gas stream was diverted from the control device

or treatment system through a bypass line or the indication of bypass flow as specified under §60.766.

(3) Description and duration of all periods when the control device or treatment system was not operating and length of time the control device or treatment system was not operating.

(4) All periods when the collection system was not operating.

(5) The location of each exceedance of the 500 parts per million methane concentration as provided in §60.763(d) and the concentration recorded at each location for which an exceedance was recorded in the previous month. For location, you must determine the latitude and longitude coordinates using an instrument with an accuracy of at least 4 meters. The coordinates must be in decimal degrees with at least five decimal places.

(6) The date of installation and the location of each well or collection system expansion added pursuant to §60.765(a)(3), (a)(5), (b), and (c)(4).

(7) For any corrective action analysis for which corrective actions are required in §60.765(a)(3) or (5) and that take more than 60 days to correct the exceedance, the root cause analysis conducted, including a description of the recommended corrective action(s), the date for corrective action(s) already completed following the positive pressure reading, and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates.

(h) *Initial performance test report.* Each owner or operator seeking to comply with §60.762(b)(2)(iii) must 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.

(i) *Electronic reporting.* The owner or operator must submit reports electronically according to paragraphs (i)(1) and (2) of this section.

(1) Within 60 days after the date of completing each performance test (as defined in §60.8), the owner or operator must submit the results of each performance test according to the following procedures:

(i) For data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT Web site (*https://www3.epa.gov/ttn/chief/ert/ert_info.html*) at the time of the test, you must submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (*https://cdx.epa.gov/*). Performance test data must be submitted in a file format generated through the use of the EPA's ERT or an alternative file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT Web site, once the XML schema is available. If you claim that some of the performance test information being submitted is confidential business information (CBI), you must submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT Web site, including information claimed to be CBI, on a compact disc, flash drive or other commonly used electronic storage media to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's

CDX as described earlier in this paragraph.

(ii) For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT Web site at the time of the test, you must submit the results of the performance test to the ~~Administrator~~ Department ~~at the appropriate address listed in §60.4~~.

(2) Each owner or operator required to submit reports following the procedure specified in this paragraph must submit reports to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX.) The owner or operator must use the appropriate electronic report in CEDRI for this subpart or an alternate electronic file format consistent with the XML schema listed on the CEDRI Web site (*https://www3.epa.gov/ttn/chief/cedri/index.html*). If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the owner or operator must submit the report to the ~~Administrator~~ Department at the appropriate address listed in §60.4. Once the form has been available in CEDRI for 90 calendar days, the owner or operator must begin submitting all subsequent reports via CEDRI. The reports must be submitted by the deadlines specified in this subpart, regardless of the method in which the reports are submitted.

(j) *Corrective action and the corresponding timeline.* The owner or operator must submit according to paragraphs (j)(1) and (j)(2) of this section.

(1) For corrective action that is required according to §60.765(a)(3)(iii) or (a)(5)(iii) and is expected to take longer than 120 days after the initial exceedance to complete, you must submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the ~~Administrator~~ Department as soon as practicable but no later than 75 days after the first measurement of positive pressure or temperature monitoring value of 55 degrees Celsius (131 degrees Fahrenheit). The ~~Administrator~~ Department must approve the plan for corrective action and the corresponding timeline.

(2) For corrective action that is required according to §60.765(a)(3)(iii) or (a)(5)(iii) and is not completed within 60 days after the initial exceedance, you must submit a notification to the ~~Administrator~~ Department as soon as practicable but no later than 75 days after the first measurement of positive pressure or temperature exceedance.

(k) *Liquids addition.* The owner or operator of an affected landfill with a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters that has employed leachate recirculation or added liquids based on a Research, Development, and Demonstration permit (issued through Resource Conservation and Recovery Act, subtitle D, part 258) within the last 10 years must submit to the ~~Administrator~~ Department, annually, following the procedure specified in paragraph (i)(2) of this section, the following information:

(1) Volume of leachate recirculated (gallons per year) and the reported basis of those estimates (records or engineering estimates).

(2) Total volume of all other liquids added (gallons per year) and the reported basis of those estimates (records or engineering estimates).

(3) Surface area (acres) over which the leachate is recirculated (or otherwise applied).

(4) Surface area (acres) over which any other liquids are applied.

(5) The total waste disposed (megagrams) in the areas with recirculated leachate and/or added liquids based on on-site records to the extent data are available, or engineering estimates and the reported basis of those estimates.

(6) The annual waste acceptance rates (megagrams per year) in the areas with recirculated leachate and/or added liquids, based on on-site records to the extent data are available, or engineering estimates.

(7) The initial report must contain items in paragraph (k)(1) through (6) of this section per year for the initial annual reporting period as well as for each of the previous 10 years, to the extent historical data are available in on-site records, and the report must be submitted no later than~~:~~ thirteen (13) months after the date of commenced construction, modification, or reconstruction for landfills that commenced construction, modification, or reconstruction on or after July 17, 2014 containing data for the first 12 months after August 29, 2016.

(i) ~~September 27, 2017, for landfills that commenced construction, modification, or reconstruction after July 17, 2014 but before August 29, 2016 containing data for the first 12 months after August 29,~~

~~2016; or~~ [Reserved].

(ii) ~~Thirteen (13) months after the date of commenced construction, modification, or reconstruction for landfills that commence construction, modification, or reconstruction after August 29, 2016 containing data for the first 12 months after August 29, 2016~~ [Reserved].

(8) Subsequent annual reports must contain items in paragraph (k)(1) through (6) of this section for the 365-day period following the 365-day period included in the previous annual report, and the report must be submitted no later than 365 days after the date the previous report was submitted.

(9) Landfills may cease annual reporting of items in paragraphs (k)(1) through (7) of this section once they have submitted the closure report in paragraph (e) of this section.

(l) *Tier 4 notification.* (1) The owner or operator of an affected landfill with a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters must provide a notification of the date(s) upon which it intends to demonstrate site-specific surface methane emissions are below 500 parts per million methane, based on the Tier 4 provisions of §60.764(a)(6). The landfill must also include a description of the wind barrier to be used during the SEM in the notification. Notification must be postmarked not less than 30 days prior to such date.

(2) If there is a delay to the scheduled Tier 4 SEM date due to weather conditions, including not meeting the wind requirements in §60.764(a)(6)(iii)(A), the owner or operator of a landfill shall notify the ~~Administrator~~ Department by email or telephone no later than 48 hours before any delay or cancellation in the original test date, and arrange an updated date with the ~~Administrator~~ Department by mutual agreement.

§60.768 Recordkeeping requirements.

(a) Except as provided in §60.767(c)(2), each owner or operator of an MSW landfill subject to the provisions of §60.762(b)(2)(ii) and (iii) must keep for at least 5 years up-to-date, readily accessible, on-site records of the design capacity report that triggered §60.762(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 §60.767(c)(2), each owner or operator of a controlled landfill must keep up-to-date, readily accessible records for the life of the control system equipment of the data listed in paragraphs (b)(1) through (5) of this section as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring must be maintained for a minimum of 5 years. Records of the control device vendor specifications must be maintained until removal.

(1) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §60.762(b)(2)(ii):

(i) The maximum expected gas generation flow rate as calculated in §60.765(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~~ Department.

(ii) The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in §60.769(a)(1).

(2) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §60.762(b)(2)(iii) through use of an enclosed combustion device other than a boiler or process heater with a design heat input capacity equal to or greater than 44 megawatts:

(i) The average 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 §60.762(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 §60.762(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 §60.762(b)(2)(iii)(A) through use of a non-enclosed 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.

(5) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §60.762(b)(2)(iii) through use of a landfill gas treatment system:

(i) *Bypass records.* Records of the flow of landfill gas to, and bypass of, the treatment system.

(ii) *Site-specific treatment monitoring plan,* to include:

(A) Monitoring records of parameters that are identified in the treatment system monitoring plan and that ensure the treatment system is operating properly for each intended end use of the treated landfill gas. At a minimum, records should include records of filtration, de-watering, and compression parameters that ensure the treatment system is operating properly for each intended end use of the treated landfill gas.

(B) Monitoring methods, frequencies, and operating ranges for each monitored operating parameter based on manufacturer's recommendations or engineering analysis for each intended end use of the treated landfill gas.

(C) Documentation of the monitoring methods and ranges, along with justification for their use.

(D) Identify who is responsible (by job title) for data collection.

(E) Processes and methods used to collect the necessary data.

(F) Description of the procedures and methods that are used for quality assurance, maintenance, and repair of all continuous monitoring systems.

(c) Except as provided in §60.767(c)(2), each owner or operator of a controlled landfill subject to the provisions of this subpart must keep for 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in §60.766 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 must be recorded and reported under §60.767(g):

(i) For enclosed combustors except for boilers and process heaters with design heat input capacity of 44 megawatts (150 million British thermal units per hour) or greater, all 3-hour periods of operation during which the average temperature was more than 28 degrees Celsius (82 degrees Fahrenheit) below the average combustion temperature during the most recent performance test at which compliance with §60.762(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 must keep up-to-date, readily accessible continuous records of the indication of flow to the control system and 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 §60.766.

(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 §60.762(b)(2)(iii) must 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 a non-enclosed flare must keep up-to-date, readily accessible continuous records of the flame or flare pilot flame monitoring specified under §60.766(c), and up-to-date, readily accessible records of all periods of operation in which the flame or flare pilot flame is absent.

(5) Each owner or operator of a landfill seeking to comply with §60.762(b)(2) using an active collection system designed in accordance with §60.762(b)(2)(ii) must keep records of periods when the collection system or control device is not operating.

(d) Except as provided in §60.767(c)(2), each owner or operator subject to the provisions of this subpart must 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 must keep up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified under §60.765(b).

(2) Each owner or operator subject to the provisions of this subpart must 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 §60.769(a)(3)(i) as well as any nonproductive areas excluded from collection as provided in §60.769(a)(3)(ii).

(e) Except as provided in §60.767(c)(2), each owner or operator subject to the provisions of this subpart must keep for at least 5 years up-to-date, readily accessible records of the following:

(1) All collection and control system exceedances of the operational standards in §60.763, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance.

(2) Each owner or operator subject to the provisions of this subpart must also keep records of each wellhead temperature monitoring value of 55 degrees Celsius (131 degrees Fahrenheit) or above, each wellhead nitrogen level at or above 20 percent, and each wellhead oxygen level at or above 5 percent.

(3) For any root cause analysis for which corrective actions are required in §60.765(a)(3)(i) or (a)(5)(i), keep a record of the root cause analysis conducted, including a description of the recommended corrective action(s) taken, and the date(s) the corrective action(s) were completed.

(4) For any root cause analysis for which corrective actions are required in §60.765(a)(3)(ii) or (a)(5)(ii), keep a record of the root cause analysis conducted, the corrective action analysis, the date for corrective action(s) already completed following the positive pressure reading or high temperature reading, and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates.

(5) For any root cause analysis for which corrective actions are required in §60.765(a)(3)(iii) or (a)(5)(iii), keep a record of the root cause analysis conducted, the corrective action analysis, the date for corrective action(s) already completed following the positive pressure reading or high temperature reading, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates, and a copy of any comments or final approval on the corrective action analysis or schedule from the regulatory agency.

(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", must 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.

(g) Landfill owners or operators seeking to demonstrate that site-specific surface methane emissions are below 500 parts per million by conducting surface emission monitoring under the Tier 4 procedures specified in §60.764(a)(6) must keep for at least 5 years up-to-date, readily accessible records of all surface emissions monitoring and information related to monitoring instrument calibrations conducted according to sections 8 and 10 of Method 21 of appendix A of this part, including all of the following items:

(1) Calibration records:

(i) Date of calibration and initials of operator performing the calibration.

(ii) Calibration gas cylinder identification, certification date, and certified concentration.

(iii) Instrument scale(s) used.

(iv) A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value.

(v) If an owner or operator makes their own calibration gas, a description of the procedure used.

(2) Digital photographs of the instrument setup, including the wind barrier. The photographs must be

time and date-stamped and taken at the first sampling location prior to sampling and at the last sampling location after sampling at the end of each sampling day, for the duration of the Tier 4 monitoring demonstration.

(3) Timestamp of each surface scan reading:

(i) Timestamp should be detailed to the nearest second, based on when the sample collection begins.

(ii) A log for the length of time each sample was taken using a stopwatch (*e.g.,* the time the probe was held over the area).

(4) Location of each surface scan reading. The owner or operator must determine the coordinates using an instrument with an accuracy of at least 4 meters. Coordinates must be in decimal degrees with at least five decimal places.

(5) Monitored methane concentration (parts per million) of each reading.

(6) Background methane concentration (parts per million) after each instrument calibration test.

(7) Adjusted methane concentration using most recent calibration (parts per million).

(8) For readings taken at each surface penetration, the unique identification location label matching the label specified in paragraph (d) of this section.

(9) Records of the operating hours of the gas collection system for each destruction device.

(h) Except as provided in §60.767(c)(2), each owner or operator subject to the provisions of this subpart must keep for at least 5 years up-to-date, readily accessible records of all collection and control system monitoring data for parameters measured in §60.766(a)(1), (2), and (3).

(i) Any records required to be maintained by this subpart that are submitted electronically via the EPA's CDX may be maintained in electronic format.

(j) For each owner or operator reporting leachate or other liquids addition under §60.767(k), keep records of any engineering calculations or company records used to estimate the quantities of leachate or liquids added, the surface areas for which the leachate or liquids were applied, and the estimates of annual waste acceptance or total waste in place in the areas where leachate or liquids were applied.

§60.769 Specifications for active collection systems.

(a) Each owner or operator seeking to comply with §60.762(b)(2)(i) must 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~~ Department as provided in §60.767(c)(2) and (3):

(1) The collection devices within the interior must be certified to achieve comprehensive control of surface gas emissions by a professional engineer. The following issues must be addressed in the design: Depths of refuse, refuse gas generation rates and flow characteristics, cover properties, gas system expandability, leachate and condensate management, accessibility, compatibility with filling operations, integration with closure end use, air intrusion control, corrosion resistance, fill settlement, resistance to the refuse decomposition heat, and ability to isolate individual components or sections for repair or troubleshooting without shutting down entire collection system.

(2) The sufficient density of gas collection devices determined in paragraph (a)(1) of this section must 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 must control all gas producing areas, except as provided by paragraphs (a)(3)(i) and (ii) of this section.

(i) Any segregated area of asbestos or nondegradable material may be excluded from collection if documented as provided under §60.768(d). The documentation must provide the nature, date of deposition, location and amount of asbestos or nondegradable material deposited in the area, and must be provided to the ~~Administrator~~ Department 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 must be documented and provided to the ~~Administrator~~ Department upon request. A separate NMOC emissions estimate must be made for each

section proposed for exclusion, and the sum of all such sections must be compared to the NMOC emissions estimate for the entire landfill.

(A) The NMOC emissions from each section proposed for exclusion must be computed using Equation 7:

$$Q_i = 2\ k\ L_o M_i (e^{-kt_i})\ (C_{NMOC})\ (3.6 \times 10^{-9}) \qquad \text{(Eq. 7)}$$

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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.

(B) If the owner/operator is proposing to exclude, or cease gas collection and control from, nonproductive physically separated (*e.g.,* separately lined) closed areas that already have gas collection systems, NMOC emissions from each physically separated closed area must be computed using either Equation 3 in §60.764(b) or Equation 7 in paragraph (a)(3)(ii)(A) of this section.

(iii) The values for k and C_{NMOC} determined in field testing must 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, L_o and C_{NMOC} provided in §60.764(a)(1) or the alternative values from §60.764(a)(5) must 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 §60.762(b)(2)(ii)(A) construct the gas collection devices using the following equipment or procedures:

(1) The landfill gas extraction components must 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 must extend as necessary to comply with emission and migration standards. Collection devices such as wells and horizontal collectors must be perforated to allow gas entry without head loss sufficient to impair performance across the intended extent of control. Perforations must be situated with regard to the need to prevent excessive air infiltration.

(2) Vertical wells must be placed so as not to endanger underlying liners and must address the occurrence of water within the landfill. Holes and trenches constructed for piped wells and horizontal collectors must 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 must 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 must include a positive closing throttle valve, any necessary seals and couplings, access couplings and at least one sampling port. The collection devices must be constructed of PVC, HDPE, fiberglass, stainless steel, or other nonporous material of suitable thickness.

(c) Each owner or operator seeking to comply with §60.762(b)(2)(iii) must convey the landfill gas to a control system in compliance with §60.762(b)(2)(iii) through the collection header pipe(s). The gas mover equipment must 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 must be used to project the maximum flow rate. If no flow data exists, the procedures in paragraph (c)(2) of this section must be used.

(2) For new collection systems, the maximum flow rate must be in accordance with §60.765(a)(1).

APPENDIX C

Certification of Public Noticing

Placeholder for

- Legal Notice in News Journal on March 12
- Legal Notice in Delaware State News on March 12
- Public Notice on DNREC website
- Public Notice on Delaware's Statewide Meeting Calendar
- Public Notice in biweekly E-News Update from DNREC's Office of Environmental Protection
- Notification to EPA Region 3
- Certification that the hearing was held in accordance with the requirements of 40 CFR 60.23(d)
- List of witness and their affiliation, if any, appearing at the hearing with a brief summary of the presentation or submittal

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Message

From: Bertram, Emily [Bertram.Emily@epa.gov]
Sent: 2/5/2019 1:18:18 PM
To: Gordon, Michael [Gordon.Mike@epa.gov]
Attachments: 1120-30 Proposed 3-12.pdf; EPA Final MSWL State Plan - 5-11-17 Clean.pdf; Final Reg 1120 7 11 17.pdf; Hrg Cert 5 30 17.pdf; Proposed MSWL State Plan - 3-12AB.pdf; Reg 1120 HO Report5 23 17.pdf; Sec Order 2017-A-0015.pdf; Submittal Ltr Reg 1120 10 10 17.pdf

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DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

Division of Air Quality

STATE PLAN FOR THE REGULATION OF AIR EMISSIONS FROM MUNICIPAL SOLID WASTE LANDFILLS

May 11, 2017

ED_001764F_00005677-00001

DELAWARE STATE PLAN TO REGULATE AIR EMISSIONS FROM MUNICIPAL SOLID WASTE LANDFILLS

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Delaware State Plan to Regulate Air Emissions from Municipal Solid Waste Landfills

I. Introduction

On March 12, 1996, the Environmental Protection Agency (EPA) promulgated emission guidelines (EG) for the control of landfill gas (LFG) emissions from existing municipal solid waste (MSW) landfills. The EG are found in Subpart Cc of 40 CFR Part 60. Effective August 29, 2016 the EPA finalized a new subpart that updates the EG and Compliance Times for existing Municipal Solid Waste Landfills to reflect changes to the population of landfills and the results of an EPA analysis of the timing and methods for reducing emissions. The revised EG is found in Subpart Cf of 40 CFR Part 60.

Landfill gas contains methane, carbon dioxide, and more than 100 different nonmethane organic compounds (NMOCs) including volatile organic compounds (VOCs), hazardous air pollutants (HAPs), and odorous compounds. Landfills are a significant source of methane, which is a potent greenhouse gas pollutant. The EPA has determined that affects from these compounds include ground-level ozone formation, cancer and noncancer health effects, odor nuisance, methane migration and fire hazard potential, and global warming.

The State of Delaware has developed this State Plan for imposing collection and control requirements on existing landfills, as required by the emission guidelines, Section 111(d) of the Clean Air Act, and 40 CFR Part 60 Subpart B, Adoption and Submittal of State Plans for Designated Facilities.

II. Legal Authorities and Enforceable Mechanism

Effective August 29, 2016, the EPA promulgated a new source performance standard (NSPS) for the control of emissions from new (i.e. newly constructed, reconstructed or modified) MSW landfills. The NSPS is found at 40 CFR Part 60 Subpart XXX (Subpart XXX). The EPA also promulgated emission guidelines for the development of State Plans to control the emissions from existing MSW landfills. The emission guideline is found at 40 CFR Part 60 Subpart Cf (Subpart Cf). 7 **Del.C**. Ch. 60 (Environmental Control) gives the Secretary of the Department of Natural Resources and Environmental Control (DNREC) the legal authority to adopt, implement, and enforce regulations that control the emissions of air contaminants into the atmosphere. Delaware's plan is to adopt into 7 **DE Admin. Code** 1120, "New Source Performance Standards", a new regulation, as Section 30, that incorporates Subpart XXX by reference. When adopting Subpart XXX, the MSW landfills being subject to Section 30 of 7 **DE Admin. Code** 1120 (Section 30) will be expanded to additionally include all MSW landfills that have accepted municipal solid waste after November 8, 1987 or MSW landfills that have additional capacity available to accept municipal solid waste. Thus, Delaware's 3 existing MSW landfills are also subject to Section 30; thereby enabling Delaware to meet the applicability requirements of Subpart Cf. Once promulgated, the regulation and this State Plan will be submitted to the EPA for approval pursuant to 40 CFR 60.27. Delaware has the requisite legal authorities to develop, implement and enforce this State Plan, specifically:

1. Section 6010 "Rules and regulations; plans" of 7 **Del.C**. Ch. 60 gives the Secretary the authority to adopt regulations that control the emissions of air contaminants, which includes the designated pollutants in Subpart Cf, into the atmosphere.

2. Section 6005 "Enforcement; civil and administrative penalties; expenses" of 7 **Del.C**. Ch. 60 gives the Secretary the authority to enforce any rule, regulation, or permit condition.

3. Section 6010 of 7 **Del.C**. Ch. 60, 7 **DE Admin. Code** 1102 "Permits," 7 **DE Admin. Code** 1117 "Source Monitoring, Recordkeeping and Reporting," 7 **DE Admin. Code** 1130 "Title V State Operating Permit Program," and Section 30, gives the Secretary the authority to obtain information necessary to determine compliance.

4. Section 6010 and section 6024 "Right of Entry" of 7 **Del.C**. Ch. 60, 7 **DE Admin. Code** 1102, 7 **DE Admin. Code** 1117, 7 **DE Admin. Code** 1130, and Section 30, gives the Secretary the

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

5. Section 6010 of 7 **Del.C**. Ch. 60, 7 **DE Admin. Code** 1102, 7 **DE Admin. Code** 1117, 7 **DE Admin. Code** 1130, and Section 30, gives the Secretary the authority to require the use of monitors and require emission reports of municipal solid waste landfill owners or operators.

6. Section 6014 "Regulatory and compliance information, facility performance and public information" of 7 **Del.C**. Ch. 60, 7 **DE Admin. Code** 1102, and 7 **DE Admin. Code** 1130 gives the Secretary the authority to make emission data available to the public.

The requisite legal authorities, which are available at the time of the submission of the State Plan, are provided in APPENDIX A of this State Plan.

The complete text of Subpart XXX, as adopted in Section 30, is provided in APPENDIX B of this State Plan. Other referenced documents are available from the Department upon request.

III. Adoption of 40 CFR Part 60 Subpart XXX by Reference

The State of Delaware is adopting Subpart XXX by reference with several changes that also make existing municipal solid waste landfills subject to Section 30. The adoption of this regulation will be incorporated into the State of Delaware "**Regulations Governing the Control of Air Pollution**" in Section 30. This regulation will read as follows:

DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL
Division of Air Quality
1120 New Source Performance Standards

30.0 Standards of Performance for Municipal Solid Waste Landfills After July 11, 2017

The provisions of Subpart XXX of Part 60, Title 40 of the Code of Federal Regulations - "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, attached hereto, are hereby incorporated herein and adopted by reference, subject to the following changes:

30.1 Wherever the word "Administrator" appears it shall be replaced by the word "Department", with the exception of paragraphs 60.760(b) and 60.764(a)(5).

30.2 The ASTM Standard Test Method D6522-11 is incorporated herein and adopted by reference. The following definitions, subsections and test methods that are referenced in the text of the preceding adoption are also incorporated herein and adopted by reference as they appear in Title 40 of the Code of Federal Regulations, dated July 1, 2016:

30.2.1 The definition of "land application unit", "surface impoundment", "injection well", "waste pile" and "other types of RCRA Subtitle D wastes" as each of those terms is defined in 40 CFR 257.2.

30.2.2 The definition of "sludge" and "solid waste" as each of those terms is defined in 40 CFR 258.2.

30.2.3 The definition of "performance test" in 60.764(a)(3)(i), as the term is defined in 40 CFR 60.8.

30.2.4 The requirements of 40 CFR 51.166 and 52.21, as referenced in 60.764(c).

30.2.5 The requirements of 40 CFR 60.4, as referenced in 60.767(i)(2).

30.2.6 The requirements of 40 CFR 60.7(a)(1), as referenced in 60.767(a)(1).

30.2.7 The requirements of 40 CFR 60.7(a)(4), as referenced in 60.761 and 60.767(e).

30.2.8 The requirements of 40 CFR 60.8, as referenced in 60.764(b)(3)(i), 60.764(e)(1), 60.767(g), 60.767(h), and 60.767(i)(1).

30.2.9 The requirements of 40 CFR 60.17, as referenced in 60.766(a)(2)(ii) and 60.766(a)(2)(iii)(B).

30.2.10 The requirements of 40 CFR 60.18, as referenced in 60.762(b)(2)(iii)(A) and 60.768(b)(4).

30.2.11 The requirements of 40 CFR 60.18(f)(3) and 60.18(f)(4), as referenced in 60.764(e).

30.2.12 The requirements of 40 CFR 258, as referenced in 60.767(k).

30.2.13 The requirements of 40 CFR 258.40, as referenced in 60.762(b)(2)(ii)(D)(2).

30.2.14 The requirements of 40 CFR 258.60, as referenced in 60.767(e).

30.2.15 Methods 2, 2E, 3, 3A, 3C, 18, 21, 25, 25A and 25C in appendix A of 40 CFR Part 60.

30.3 The title of Subpart XXX shall be replaced with the following language: "30.0 Standards of Performance for Municipal Solid Waste Landfills After July 11, 2017."

30.4 Section 60.760(a) shall be replaced with the following language: "The provisions of this subpart apply to each municipal solid waste landfill, open or closed, that commenced construction, reconstruction, or modification after July 17, 2014 or that has accepted waste after November 8, 1987 or that has additional capacity available to accept waste."

30.5 Section 60.762(a) shall be replaced with the following language: "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 must submit an initial design capacity report to the Department as provided in §60.767(a). The landfill may calculate design capacity in either megagrams or cubic meters for comparison with the exemption values. Any density conversions must be documented and submitted with the report. For purposes of 7 **DE Admin. Code** 1130, Title V State Operating Permit Program, 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 7 **DE Admin. Code** 1130, provided it is not a major source as defined in 7 **DE Admin. Code** 1130. Submittal of the initial design capacity report fulfills the requirements of this subpart except as provided for in paragraphs (a)(1) and (2) of this section."

30.6 Delete ", local, or tribal" in Sections 60.761, 60.767(a)(2)(i) and 60.767(a)(2)(ii).

30.7 Paragraph 60.762(b) 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 either comply with paragraph (b)(2) of this section or calculate an NMOC emission rate for the landfill using the procedures specified in §60.764. The NMOC emission rate must be recalculated annually, except as provided in §60.767(b)(1)(ii). 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 7 **DE Admin. Code** 1130. When a landfill is closed, and either never needed control or meets the conditions for control system removal specified in §60.762(b)(2)(v), a 7 **DE Admin. Code** 1130 operating permit is no longer required."

30.8 Section 60.762(b)(2)(ii) 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 in accordance with paragraph (b)(2)(ii)(A) or (B) of this section, whichever is applicable."

30.9 Section 60.762(b)(2)(ii)(A) shall be replaced with the following language: "*For MSW landfills that commenced construction, reconstruction, or modification on or after July 17, 2014.* The collection and control system must be started up in accordance with paragraph (b)(2)(ii)(A)(*1*) or (*2*) of this section, whichever is applicable."

30.10 Add new section 60.762(b)(2)(ii)(A)*(1)* with the following language: "Within 30 months of the first annual report in which the NMOC emission rate equals or exceeds 34 megagrams per year, unless Tier 2 or Tier 3 sampling demonstrates that the NMOC emission rate is less than 34 megagrams per year, as specified in §60.767(c)(4) or".

30.11 Add new section 60.762(b)(2)(ii)(A)*(2)* with the following language: "Within 30 months of the most recent NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year based on Tier 2, if the Tier 4 surface emissions monitoring shows a surface methane emission concentration of 500 parts per million methane or greater as specified in §60.767(c)(4)(iii)."

30.12 Section 60.762(b)(2)(ii)(B) shall be replaced with the following language: "*For all other subject MSW landfills.* As expeditiously as practicable but not later than January 8, 2018."

30.13 Section 60.762(c) shall be replaced with the following language: "For purposes of obtaining an operating permit under title V of the Clean Air Act, the owner or operator of an 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 7 **DE Admin. Code** 1130, 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 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 7 **DE Admin. Code** 1130, becomes subject to the requirements of paragraph 5.1.1 of 7 **DE Admin. Code** 1130, regardless of when the design capacity report is actually submitted, no later than:".

30.14 Sections 60.762(c)(1), 60.767(a)(1)(i) and 60.767(b)(1)(i)(A) shall be replaced with the following language: "Ninety days after the date of commenced construction, modification, or reconstruction for MSW landfills that commenced construction, modification, or reconstruction on or after July 17, 2014 or".

30.15 Section 60.762(c)(2) and Section 60.767(b)(1)(i)(B) shall be replaced with the following language: "January 8, 2018 for all other subject MSW landfills."

30.16 Section 60.763(g) shall be replaced with the following language: "If monitoring demonstrates that the operational requirement in paragraphs (b), (c), or (d) of this section are not met, corrective action must be taken as specified in §60.765(a)(3) and (5) or §60.765(c). If corrective actions are taken, as specified in §60.765, the monitored exceedance is not a violation of the operational requirements in this section."

30.17 Section 60.767(a)(1)(ii) shall be replaced with the following language: "The date specified in a State construction or operating permit, if applicable, or January 8, 2018, whichever is earlier, for all other subject MSW landfills."

30.18 The final sentence in section 60.767(a)(2)(ii) shall be replaced with the following language: "The Department may request other reasonable information as may be necessary to verify the maximum design capacity of the landfill."

30.19 Section 60.767(i)(1)(ii) shall be replaced with the following language: "For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT Web site at the time of the test, you must submit the results of the performance test to the Department."

30.20 Section 60.767(k)(7) shall be replaced with the following language: "The initial report must contain items in paragraph (k)(1) through (6) of this section per year for the initial annual reporting period as well as for each of the previous 10 years, to the extent historical data are available in on-site records, and the report must be submitted no later than thirteen (13) months after the date of commenced construction, modification, or reconstruction for landfills that commenced construction, modification, or reconstruction on or after July 17, 2014 containing data for the first 12 months after August 29, 2016."

30.21 Delete and reserve sections 60.767(k)(7)(i) and 60.767(k)(7)(ii).

30.22 Section 60.768(c)(3) shall be replaced with the following language: "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 §60.762(b)(2)(iii) must 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 or federal regulatory requirements.)"

The complete text of Subpart XXX, as adopted in Section 30, is provided in APPENDIX B of this State Plan. All municipal solid waste landfills in Delaware are subject to Section 30.

IV. Source and Emission Inventories

Delaware has three municipal solid waste landfills that are subject to the requirements of this State Plan. All of these MSW landfills are currently accepting waste, have a design capacity greater than 2.5 million megagrams, and an uncontrolled NMOC emission rate of greater than 34 megagrams per year using Tier 1 procedures. These facilities along with the emission inventories are provided in the table below.

Municipal Solid Waste Landfills Subject To Emission Guidelines in Subpart Cf					
Facility Name	**County**	**Design Capacity (Million Mg)**	**2016 Estimated NMOC Emissions (Uncontrolled)**	**Tier**	**Year Opened**
Cherry Island (NSWMC-2)	New Castle	21.203	53.45 Mg/year	1	10/85
Central Solid Waste Management Center (CSWMC)	Kent	8.313	38.38 Mg/year	1	10/80
Southern Solid Waste Management Center (SSWMC)	Sussex	7.628	29.78 Mg/year	1	10/84

Note that pursuant to Section 28 of 7 **DE Admin. Code** 1120 each of these three existing municipal solid waste landfills is currently subject to the requirements of 40 CFR Part 60 Subpart WWW.

V. Emission Standards

The emission standards for municipal solid waste landfills are those stated in Section 60.762 of Section 30. These standards include design capacity cutoff for applicability, NMOC emission limits, collection system requirements, types of control device requirements, and length of time of required control for municipal solid waste landfills. The test methods and procedures for determining compliance with the emission standards are those stated in Section 60.764 of Section 30.

The emission standards apply to any municipal solid waste landfill, open or closed, that commenced construction, reconstruction, or modification after July 17, 2014 or that has accepted waste after November 8, 1987 or that has additional capacity available to accept waste.

VI. Process for Review of Design Plans

For a landfill subject to the emission standards, the owner or operator must submit to the Department a Collection and Control Design Plan. This design plan must meet the requirements stated in Section 30.

As provided for in Section 30, the Department will review each submitted design plan and will, in writing, either approve it, disapprove it, or request that additional information be submitted.

VII. Compliance Schedules

The table below specifies the compliance schedule for existing municipal solid waste landfills in the State of Delaware.

Compliance Schedule for Existing Municipal Solid Waste Landfills	
State Plan Submittal to EPA	May 30, 2017
EPA approval of State Plan	Within 4 months of submittal to EPA
Final emission guideline compliance date	For NSWMC-2, CSWMC, and SSWMC, to be completed as expeditiously as possible but no later than 180 days from the effective date of Section 30

VIII. Public Participation

A public hearing was held on April 24, 2017 at 6:00 pm in the Department of Natural Resources and Environmental Control's office located at 100 W. Water Street, Suite 6A, Dover, DE. Affidavits from the Delaware State News and the Sunday News Journal, and copies of the notices as they appeared in those publications on March 12, 2017 advertising the public hearing are provided in APPENDIX C of this State Plan. A list of the public hearing attendees and other public noticing is also provided in APPENDIX C.

IX. Source Surveillance, Compliance Assurance, and Enforcement

The affected facilities will be subject to the operational standards, test methods and procedures, compliance provisions, monitoring of operations, reporting requirements, and recordkeeping requirements specified in Section 30.

The Department will submit annual reports to the EPA which detail the progress in the enforcement of the State Plan. The first progress report will be submitted to the EPA one year following the approval of the State Plan. The annual report will contain the following information:

1. Enforcement actions initiated against a designated facility during the reporting period,

2. Identification of the achievement of any increments of progress required by the State Plan during the reporting period,

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

4. Submission of additional emission data to update previous progress reports, and

5. Emission inventory data for any municipal solid waste landfill that has accepted waste after November 8, 1987, or that has additional design capacity available to accept waste and that was not in operation at the time of State Plan development but began operation during the reporting period.

Technical reports on all performance testing conducted on the designated facilities, complete with concurrently recorded control device operating data will be retained by the Department and a copy will be sent to the Environmental Protection Agency, Region III.

APPENDIX A

Legal Authorities

1 7 DE Code Chapter 60 - Subchapter I. General Provisions
2 7 DE Code Chapter 60 - Subchapter II. Powers and Duties of Secretary and Department
3 7 DE Admin Code 1102 - Permits
4 7 DE Admin Code 1117 - Source Monitoring, Record Keeping And Reporting
5 7 DE Admin Code 1130 - Title V State Operating Permit Program

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TITLE 7

Conservation

Natural Resources

CHAPTER 60. ENVIRONMENTAL CONTROL

Subchapter I. General Provisions

§ 6001 Findings, policy and purpose.

(a) *Findings.* — The General Assembly hereby makes the following findings concerning the development, utilization and control of the land, water, underwater and air resources of the State:

(1) The development, utilization and control of the land, water, underwater and air resources of the State are vital to the people in order to assure adequate supplies for domestic, industrial, power, agricultural, recreational and other beneficial uses;

(2) The development and utilization of the land, water, underwater and air resources must be regulated to ensure that the land, water, underwater and air resources of the State are employed for beneficial uses and not wasted;

(3) The regulation of the development and utilization of the land, water, underwater and air resources of the State is essential to protect beneficial uses and to assure adequate resources for the future;

(4) The land, water, underwater and air resources of the State must be protected and conserved to assure continued availability for public recreational purposes and for the conservation of wildlife and aquatic life;

(5) The land, water, underwater and air resources of the State must be protected from pollution in the interest of the health and safety of the public;

(6) The land, water, underwater and air resources of the State can best be utilized, conserved and protected if utilization thereof is restricted to beneficial uses and controlled by a state agency responsible for proper development and utilization of the land, water, underwater and air resources of the State;

(7) Planning for the development and utilization of the land, water, underwater and air resources is essential in view of population growth and the expanding economic activity within the State.

(b) *Policy.* — In view of the rapid growth of population, agriculture, industry and other economic activities, the land, water and air resources of the State must be protected, conserved and controlled to assure their reasonable and beneficial use in the interest of the people of the State. Therefore, it is the policy of this State that:

(1) The development, utilization and control of all the land, water, underwater and air resources shall be directed to make the maximum contribution to the public benefit; and

(2) The State, in the exercise of its sovereign power, acting through the Department should control the development and use of the land, water, underwater and air resources of the State so as to effectuate full utilization, conservation and protection of the water and air resources of the State.

(c) *Purpose.* — It is the purpose of this chapter to effectuate state policy by providing for:

(1) A program for the management of the land, water, underwater and air resources of the State so directed as to make the maximum contribution to the interests of the people of this State;

(2) A program for the control of pollution of the land, water, underwater and air resources of the State to protect the public health, safety and welfare;

(3) A program for the protection and conservation of the land, water, underwater and air resources of the State, for public recreational purposes, and for the conservation of wildlife and aquatic life;

(4) A program for conducting and fostering research and development in order to encourage maximum utilization of the land, water, underwater and air resources of the State;

(5) A program for cooperating with federal, interstate, state, local governmental agencies and utilities in the development and utilization of land, water, underwater and air resources;

(6) A program for improved solid waste storage, collection, transportation, processing and disposal by providing that such activities may henceforth be conducted only in an environmentally

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acceptable manner pursuant to a permit obtained from the Department.

7 Del. C. 1953, § 6001; 59 Del. Laws, c. 212, § 1.;

TITLE 7

Conservation

Natural Resources

CHAPTER 60. ENVIRONMENTAL CONTROL

Subchapter II. Powers and Duties of Secretary and Department

§ 6002 Definitions.

The following words and phrases shall have the meaning ascribed to them in this chapter unless the context clearly indicates otherwise:

(1) "Activity" means construction, or operation, or use of any facility, property, or device.

(2) "Air contaminant" means particulate matter, dust, fumes, gas, mist, smoke or vapor or any combination thereof, exclusive of uncombined water.

(3) "Air pollution" means the presence in the outdoor atmosphere of 1 or more air contaminants in sufficient quantities and of such characteristics and duration as to be injurious to human, plant or animal life or to property, or which unreasonably interferes with the enjoyment of life and property within the jurisdiction of this State, excluding all aspects of employer-employee relationships as to health and safety hazards.

(4) "At cost" means the expense to the government to conduct tests and analyses. No added service fee, or other fees and charges, may be included in this cost.

(5) "Board" means the Environmental Appeals Board.

(6) "Boat docking facility" shall mean a place where vessels may be secured to a fixed or floating structure or to the shoreline or shoreline structure.

(7) "Borrow pit" means any excavation into the subsurface for the purpose of extraction of earth products with the exception of excavation for utility or road construction, agricultural or highway drainage, or dredging operations under the jurisdiction of the U.S. Army Corps of Engineers.

(8) "Categorical pretreatment standard" means a pretreatment standard which applies to industrial users in a specific industrial subcategory.

(9) "Commercial landfill" means a waste disposal facility available for use by the general public and which accepts waste for disposal for profit.

(10) "Debris disposal area" means an excavation, pit or depression into which land clearing debris, along with small amounts of construction or demolition waste incidental to construction, has been placed and which is not a permitted or approved waste management facility.

(11) "Dedicated pumpout facility" means a semi-permanent connection made to a vessel for the purpose of removing sewage from the vessel on a continuous basis or automatic intermittent basis to an approved disposal facility.

(12) "Delineation" shall mean the process of defining and/or mapping a boundary that approximates the areas that contribute water to a particular water source used as a public water supply.

(13) "Department" means the Department of Natural Resources and Environmental Control.

(14) "Direct vessel sewage pumpout connection" shall mean a semipermanent connection made to a vessel for the purpose of removing vessel sewage from the vessel holding tank or head on a continuous or automatic intermittent basis to an approved sewage disposal facility.

(15) "Discharge or indirect discharge" means the discharge or the introduction of pollutants from any nondomestic source into a POTW.

(16) "Domestic wastewater" means the liquid and water-borne human and/or household type waste derived from residential, industrial, institutional or commercial sources.

(17) "Dump station" means a type of pumpout facility that receives vessel sewage from portable marine sanitation devices and delivers that sewage to an approved sewage disposal facility.

(18) "Earth products" means any solid material, aggregate or substance of commercial value, whether consolidated or loose, found in natural deposits on or in the earth, including, but not limited to clay, silt, diatomaceous earth, sand, gravel, stone, metallic ores, shale and soil.

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(19) "Environmental release" means any spillage, leakage, emission, discharge or delivery into the air or waters or on or into the lands of this State of any sewage of 10,000 gallons or more oil, industrial waste, liquid waste, hydrocarbon chemical, hazardous substance, hazardous waste, restricted chemical material, vessel discharge, air contaminant, pollutant, regulated biological substance or other wastes reportable pursuant to the Comprehensive Environmental Response, Compensation and Liability Act of 1980 [42 U.S.C. § 9601 et seq.], as amended, or regulations enacted pursuant to § 6028 of this title.

(20) "Excellent ground-water recharge potential area" shall mean any area where soils and sedimentary deposits of the most coarse grained nature have the best ability to transmit water vertically through the unsaturated zone to the water table as mapped by the methods described in the Delaware Geological Survey Open File Report No. 34, "Methodology For Mapping Ground-Water Recharge Areas in Delaware's Coastal Plain" (August 1991), and as depicted on a series of maps prepared by the Delaware Geological Survey. An excellent ground-water recharge potential area shall constitute a critical area as defined under Chapter 92 of Title 29.

(21) "Garbage" shall mean any putrescible solid and semisolid animal and/or vegetable wastes resulting from the production, handling, preparation, cooking, serving or consumption of food or food materials.

(22) "Graywater" means galley, bath and shower water.

(23) "Ground water" means any water naturally found under the surface of the earth.

(24) "Hydrocarbon chemical" means any compound composed of carbon and hydrogen.

(25) "Incinerator," "incinerator structure or facility," and "waste incinerator" include any structure or facility operated for the combustion (oxidation) of solid waste, even if the by-products of the operation include useful products such as steam and electricity. "Incinerator" shall not include:

a. Crematoriums;

b. The disposal of the bodies of animals through incineration;

c. The burning of poultry waste or poultry manure at the same site where the waste or manure was generated, which shall include the burning of poultry waste or poultry manure generated upon an adjacent farm;

d. The disposal of all materials used in the discovery, development, and manufacture of veterinary products, medicines and vaccines; or

e. The disposition of mortalities from poultry operations in facilities approved by the Delaware Department of Natural Resources and Environmental Control which comply with United States Department of Agricultural Natural Resources Conservation Service Interim Conservation Practice Standard Incinerator 769 or any successor standard.

(26) "Industrial user" means a source of indirect discharge. The term "industrial user" shall include, but not be limited to, the original source of the indirect discharge as well as the owners or operators of any intervening connections, other than those owned or operated by the receiving POTW, which convey the indirect discharge to the POTW.

(27) "Industrial waste" means any water-borne liquid, gaseous, solid or other waste substance or a combination thereof resulting from any process of industry, manufacturing, trade or business, or from the development of any agricultural or natural resource.

(28) "Liquid waste" means any industrial waste or sewage or other wastes or any combination thereof which may potentially alter the chemical, physical or biological integrity of water from its natural state.

(29) "Liquid waste hauler" means any person who engages in the removal of liquid wastes from septic tanks, cesspools, seepage pits, holding tanks or other such devices and conveys such liquid waste to a location removed from the point of acceptance.

(30) "Liquid waste treatment plant operator" means any person who has direct responsibility for the operation of a liquid waste treatment plant.

(31) "Live-aboard vessel" shall mean:

a. A vessel used principally as a residence;

b. A vessel used as a place of business, professional or other commercial enterprise and, if used as a means of transportation, said transportation use is a secondary or subsidiary use; this definition shall not include commercial fishing boats which do not fall under paragraph (31)a. of this section; or

c. Any other floating structure used for the purposes stated under paragraph (31)a. or b. of this section.

(32) "Marinas" are those facilities adjacent to the water which provide for mooring, berthing, or storage of boats, and which include any or all of the related ancillary structures and functions of marinas, such as docks, piers, boat storage areas, boat ramps, anchorages, breakwaters, channels, moorings, basins, boat repair services, boat sales, sales of supplies which are normally associated with boating such as fuel, bait and tackle, boat rentals and parking areas for users of the marina.

(33) "Marine Sanitation Device (MSD)" includes any equipment on board a vessel which is designed to receive, retain, treat or discharge sewage, and any process to treat such sewage. Marine sanitation devices are classified as:

a. "Type I marine sanitation device" means a device that produces an effluent having a fecal coliform bacteria count not greater than 1,000 per 100 milliliters and no visible floating solids.

b. "Type II marine sanitation device" means a device that produces an effluent having a fecal coliform bacteria count of not greater than 200 per 100 milliliters and suspended solids not greater than 150 milligrams per liter.

c. "Type III marine sanitation device" means a device that is certified to a no-discharge standard. Type III devices include recirculating and incinerating MSDs and holding tanks.

(34) "Oil" means oil of any kind and in any form, including but not limited to, petroleum products, sludge, oil refuse, oil mixed with other wastes and all other liquid hydrocarbons regardless of specific gravity.

(35) "Open dump" means any facility or site where solid waste is disposed which is not a sanitary landfill and which is not a facility for disposal for hazardous waste.

(36) "Other wastes" means garbage, refuse, decayed wood, sawdust, shavings, bark, sand, lime cinders, ashes, offal, oil, tar, dye-stuffs, acids, chemicals and all discarded substances other than sewage or industrial wastes.

(37) "Persons" means any individual, trust, firm, joint stock company, federal agency, partnership, corporation (including a government corporation), association, state, municipality, commission, political subdivision of a state or any interstate body.

(38) "Pollutant" means dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, hydrocarbons, oil, and product chemicals, and industrial, municipal and agricultural waste discharged into water.

(39) "POTW pretreatment program" means a program administered by a POTW for the purpose of enforcing pretreatment standards in accordance with the Federal Water Pollution Control Act, as amended, 33 U.S.C. § 1251 et seq. and regulations promulgated thereunder.

(40) "Pretreatment standard" means any pollutant discharge limit promulgated by the Administrator of the United States Environmental Protection Agency in accordance with § 307(b) and (c) of the Federal Water Pollution Control Act, as amended, 33 U.S.C. § 1317(b) and (c), or by the Secretary, which applies to industrial users.

(41) "Public drinking water system" shall mean a community, noncommunity or non-transient non-community water system which provides piped water to the public for human consumption. The system must have at least 15 service connections or regularly serve at least 25 individuals daily for at least 60 days.

(42) "Publicly owned treatment works" or "POTW" means either:

a. A treatment works which is owned by a city, town, county, district or other public body created by or pursuant to the laws of the State; or

b. Any such public body which has jurisdiction over the discharges to such treatment works.

(43) "Pumpout facility" means a mechanical device which is temporarily connected to a vessel for the purpose of removing sewage from a vessel to an approved sewage disposal facility.

(44) "Refuse" means any putrescible or nonputrescible solid waste, except human excreta, but including garbage, rubbish, ashes, street cleanings, dead animals, offal and solid agricultural, commercial, industrial, hazardous and institutional wastes and construction wastes resulting from the operation of a contractor.

(45) "Restricted chemical material" means:

a. Any halogenated hydrocarbon chemical (aliphatic or aromatic) including but not limited to trichloroethane, tetrachloroethylene, methylene chloride, halogenated benzenes and carbon tetrachloride; or

b. Any aromatic hydrocarbon chemical including, but not limited to, benzene, toluene and naphthalene; or

c. Any halogenated phenol derivative in which a hydroxide group and 2 or more halogen atoms are substituted onto aromatic carbons of a benzene ring including, but not limited to, trichlorophenol and pentachlorophenol; or

d. Similar materials including but not limited to acrolein, acrylonitrile or benzidene.

(46) "Rubbish" means any nonputrescible solid waste, excluding ashes, such as cardboard, paper, plastic, metal or glass food containers, rags, waste metal, yard clippings, small pieces of wood, excelsior, rubber, leather, crockery and other waste materials.

(47) "Sanitary landfill" means a facility for the disposal of solid waste which meets the criteria promulgated under § 6010(g)(1) of this title.

(48) "Secretary" means the Secretary of the Department of Natural Resources and Environmental Control or the Secretary's duly authorized designee.

(49) "Sewage" means water-carried human or animal wastes from septic tanks, water closets, residences, buildings, industrial establishments, or other places, together with such ground water infiltration, subsurface water, admixtures of industrial wastes or other wastes as may be present.

(50) "Sewage system" means any part of a wastewater disposal system including, but not limited to, all toilets, urinals, piping, drains, sewers, septic tanks, distribution boxes, absorption fields, seepage pits, cesspools and dry wells.

(51) "Sewage system cleanser" means: (i) Any solid or liquid material intended or used primarily for the purpose of cleaning, treating or unclogging any part of a sewage system, or (ii) any solid or liquid material intended or used primarily for the purpose of continuously or automatically deodorizing or disinfecting any part of a sewage system including, but not limited to, solid cakes or devices placed in plumbing fixtures. Excluded from this definition are products intended or used primarily in the manual surface cleaning, scouring, treating, deodorizing or disinfecting, of common plumbing fixtures.

(52) "Slip" means a place where a boat may be secured to a fixed or floating structure, including, but not limited to a dock, pier, mooring or anchorage. Slips may be wet (in the water) or dry (in a rack or other device on land).

(53) "Solid waste" means any garbage, refuse, refuse-derived fuel, demolition and construction waste wood, sludge from a waste 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 material in irrigation return flows or industrial discharges which are point sources subject to permits under this chapter, as amended, or source, special nuclear or by-product material as defined by the Atomic Energy Act of 1954 [42 U.S.C. § 2011 et seq.], as amended. By-products of a uniform and known composition produced as a result of a production process are not solid wastes when incinerated onsite. All incinerators under state permit as of March 1, 2000, and renewal permit applications for these incinerators shall not come under the provisions of this section and § 6003 of this title.

(54) "Source water" shall mean any aquifer or surface water body from which water is taken either periodically or continuously by a public drinking water system for drinking or food-processing purposes.

(55) "Source water assessment" shall mean the identification and evaluation of the sources of water within the State that are used by public drinking water systems in an effort to determine the susceptibility of those sources to contamination.

(56) "Source water assessment area" shall mean the delineated area which contributes water to a public water supply system. This is called a wellhead protection area for a well and a watershed or basin for a surface water intake. A source water assessment area shall constitute a critical area as defined under Chapter 92 of Title 29.

(57) "Source water assessment plan" shall mean the October 1999 U.S. EPA-approved plan for evaluating the sources of public drinking water in Delaware for their vulnerability and susceptibility to contamination.

(58) "Source Water Protection Citizens Technical Advisory Committee" shall mean a group to advise the Secretary of the Department of Natural Resources and Environmental Control, including, but not limited to, representatives of the following organizations or municipalities: DNREC, Department of Health and Social Services, Department of Agriculture, the Delaware Nature Society, the Delaware Public Health Association, the American Association of Retired Persons, the United States Geological Survey, the Christina River Conservancy, the Water Resources Agency of the University of Delaware, the Council of Farm Organizations, the Delaware Rural Water Association, the League of Women Voters, the Friends of Herring Creek, the Civic League of New Castle County, the Delaware Geological Survey, the Committee of 100, the City of Dover, the City of Lewes, the New Castle County Department of Land Use, Kent County Levy Court, Sussex County Council, the League of Local Governments, the Sussex County Association of Towns, the Homebuilders Association of Delaware, the Commercial Industrial Realty Council, and the Delaware Association of Professional Engineers; and public water suppliers.

(59) "Surface water" means water occurring generally on the surface of the earth.

(60) "Treatment works" means any device and system used in the storage, treatment, recycling and reclamation of municipal sewage, or industrial wastes of a liquid nature, or necessary to recycle or reuse water at the most economical cost over the estimated life of the works, including intercepting sewers, outfall sewers, sewage collection systems, pumping, power and other equipment, and their appurtenances, extensions, improvements, remodeling, additions and alterations thereof; elements essential to provide a reliable recycled supply such as standby treatment units and clear well facilities and improvements to exclude or minimize inflow and infiltration.

(61) "Variance" means a permitted deviation from an established rule or regulation, or plan, or standard or procedure.

(62) "Vessel" shall mean and include every description of watercraft, boat, houseboat or other form of artificial contrivance used, or capable of being used, whether or not capable of self-propulsion, for navigation on the waters of the State.

(63) "Vessel discharge" includes, but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying or dumping.

(64) "Vessel sewage" shall mean human body wastes and wastes from toilets and other receptacles intended to receive or retain human body wastes.

(65) "Vessel sewage pumpout station" shall mean a mechanical device which is temporarily connected to a vessel for the purpose of removing vessel sewage from its holding tank or head to an approved sewage disposal facility.

(66) "Water facility" means any well, dam, reservoir, surface water intake or waterway obstruction.

(67) "Water pollution" means the human-made or human-induced alteration of the chemical, physical, biological or radiological integrity of water.

(68) "Water supply system" means all plants, systems, facilities or properties used or useful, or having the present capacity for future use, in connection with the supply or distribution of water, and any integral part thereof, including water distribution systems, mains, laterals, pumping stations, stand pipes, filtration plants, purification plants, hydrants, meters, valves and equipment, appurtenances and all properties, rights, easements and franchises relating thereto and deemed necessary or convenient by the authority for the operation thereof. Except as otherwise provided in this chapter, the term "water supply system" shall not mean a dam, reservoir, surface water intake, water obstruction or well.

(69) "Water utility" shall mean any person or entity operating within this State any water service, system, plant or equipment for public use.

(70) "Water well contractor" means any person engaged in the business of contracting for the construction of water wells and/or installation of pumping equipment in or for wells.

(71) "Well" means any excavation that is drilled, cored, bored, washed, driven, dug, jetted or otherwise constructed when the intended use of such excavation is for the location, testing, acquisition or artificial recharge of underground water, and where the depth is greater than the diameter or width.

(72) "Wellhead protection area" shall mean the surface and subsurface area surrounding a water well or wellfield supplying a public water system through which contaminants are likely to reach such a well or wellfield. A Wellhead Protection Area shall constitute a critical area as defined under Chapter 92 of Title 29.

(73) "Wellhead protection plan" shall mean the March 1990 U.S. EPA-approved plan for protecting the quality of drinking water derived from public water supply wells in Delaware.

7 Del. C. 1953, § 6002; 59 Del. Laws, c. 212, § 1; 61 Del. Laws, c. 315, § 1; 62 Del. Laws, c. 412, §§ 1, 2; 62 Del. Laws, c. 414, § 3; 63 Del. Laws, c. 248, § 1; 64 Del. Laws, c. 146, § 4; 64 Del. Laws, c. 370, § 1; 64 Del. Laws, c. 479, §§ 4, 5; 65 Del. Laws, c. 144, § 1; 66 Del. Laws, c. 275, § 1; 67 Del. Laws, c. 353, § 2; 68 Del. Laws, c. 124, § 3; 68 Del. Laws, c. 137, §§ 1, 2; 68 Del. Laws, c. 403, §§ 1, 2; 69 Del. Laws, c. 302, § 6; 70 Del. Laws, c. 186, § 1; 71 Del. Laws, c. 418, § 1; 72 Del. Laws, c. 289, §§ 1, 6, 7; 73 Del. Laws, c. 67, § 1; 73 Del. Laws, c. 117, § 1.;

§ 6003 Permit — Required.

(a) No person shall, without first having obtained a permit from the Secretary, undertake any activity:

(1) In a way which may cause or contribute to the discharge of an air contaminant; or

(2) In a way which may cause or contribute to discharge of a pollutant into any surface or ground water; or

(3) In a way which may cause or contribute to withdrawal of ground water or surface water or both; or

(4) In a way which may cause or contribute to the collection, transportation, storage, processing or disposal of solid wastes, regardless of the geographic origin or source of such solid wastes; or

(5) To construct, maintain or operate a pipeline system including any appurtenances such as a storage tank or pump station; or

(6) To construct any water facility; or

(7) To plan or construct any highway corridor which may cause or contribute to the discharge of an air contaminant or discharge of pollutants into any surface or ground water.

(b) No person shall, without first having obtained a permit from the Secretary, construct, install, replace, modify or use any equipment or device or other article:

(1) Which may cause or contribute to the discharge of an air contaminant; or

(2) Which may cause or contribute to the discharge of a pollutant into any surface or ground water; or

(3) Which is intended to prevent or control the emission of air contaminants into the atmosphere or pollutants into surface or ground waters; or

(4) Which is intended to withdraw ground water or surface water for treatment and supply; or

(5) For disposal of solid waste.

(c) The Secretary shall grant or deny a permit required by subsection (a) or (b) of this section in accordance with duly promulgated regulations and:

(1) No permit may be granted unless the county or municipality having jurisdiction has first approved the activity by zoning procedures provided by law; and

(2) No permit may be granted to any incinerator unless:

a. The property on which the incinerator is or would be located is within an area which is zoned for heavy industrial activity and shall be subject to such process rules, regulations or ordinances as the county, municipality or other government entity shall require by law, such as a conditional use, so that conditions may be applied regarding the health, safety and welfare of the citizens within the jurisdiction; and

b. Every point on the property boundary line of the property on which the incinerator is or would be located is:

1. At least 3 miles from every point on the property boundary line of any residence;

2. At least 3 miles from every point on the property boundary line of any residential community; and

3. At least 3 miles from every point on the property boundary line of any church, school, park, or hospital.

(d) A county which requests authority to administer a system for granting or denying a septic tank permit, and which satisfies the Secretary that it has the capability, including but not limited to regulations and

enforcement authority, may be authorized by the Secretary, for a term stated, to administer such a system for him or her within that county. In the event of such authorization, an applicant for a septic tank permit in that county shall not be bound by subsections (a) and (b) of this section.

(e) The Secretary may, after public hearings, publish a list of activities which do not require a permit.

(f) The Secretary may establish fees for permits issued pursuant to this section with the concurrence and approval of the General Assembly. The Secretary shall annually prepare a schedule of fees for permits issued pursuant to this section and submit the same as part of the Department's annual operating budget proposal.

(g) No county, municipality or other governmental entity shall issue any building, placement, storage or occupancy permit or license until the property owner has obtained from the Department any necessary permits for underground discharge of wastewater and withdrawal of groundwater.

(h) The Secretary may reduce the amount of any fee charged for any permit or license issued pursuant to the provisions of this title for particular types of permits or classes or categories of permittees.

(i) No county, municipality or other governmental entity shall issue any building, placement, storage or occupancy permit or license to any person intending to operate an incinerator unless:

(1) The property on which the incinerator is or would be located is within an area which is zoned for heavy industrial activity and shall be subject to such process rules, regulations or ordinances as the county, municipality or other government entity shall require by law, such as a conditional use, so that conditions may be applied regarding the health, safety and welfare of the citizens within the jurisdiction; and

(2) Every point on the property boundary line of the property on which the incinerator is or would be located is:

a. At least 3 miles from every point on the property boundary line of any residence;

b. At least 3 miles from every point on the property boundary line of any residential community; and

c. At least 3 miles from every point on the property boundary line of any church, school, park or hospital.

7 Del. C. 1953, § 6003; 59 Del. Laws, c. 212, § 1; 65 Del. Laws, c. 344, § 1; 68 Del. Laws, c. 86, § 3; 68 Del. Laws, c. 89; 68 Del. Laws, c. 348, § 1; 70 Del. Laws, c. 186, § 1; 72 Del. Laws, c. 289, §§ 2-5.;

§ 6004 Permit — Application; hearing.

(a) Any person desiring to obtain a permit required by § 6003 of this title or a variance or an application to establish a redemption center or a certificate of public convenience and necessity required by subchapter V of this chapter shall submit an application therefor in such form and accompanied by such plans, specifications and other information as required by applicable statute or regulation.

(b) Except as otherwise provided in subsection (c) of this section, upon receipt of an application in proper form, the Secretary shall advertise in a newspaper of general circulation in the county in which the activity is proposed and in a daily newspaper of general circulation throughout the State:

(1) The fact that the application has been received;

(2) A brief description of the nature of the application; and

(3) The place at which a copy of the application may be inspected.

The Secretary shall hold a public hearing on an application, if he or she receives a meritorious request for a hearing within a reasonable time as stated in the advertisement. A public hearing may be held on any application if the Secretary deems it to be in the best interest of the State to do so. Such notice shall also be sent by mail to any person who has requested such notification from the Department by providing the name and mailing address. The reasonable time stated shall be 15 days, unless federal law requires a longer time, in which case the longer time shall be stated. A public hearing request shall be deemed meritorious if it exhibits a familiarity with the application and a reasoned statement of the permit's probable impact. The applicant shall be responsible for the cost of any such advertisements and notices made by the Department as required by this section, not to exceed $500.

(c) The advertisement and notice requirements set forth in subsection (b) of this section may not apply to a permit application received by the Department whenever the subject matter of said application relates to the following:

(1) Air quality control permit applications for open burning, or for the construction or operation of

emission control equipment on an existing gasoline dispensing facility, a delivery vessel or a dry cleaning facility;

(2) Water quality control permit applications for a sewage system for 3 or fewer families, a municipal or publicly owned or operated sewage collection system that does not have a pump or lift station, or, a commercial septic system that is used to treat and dispose of 500 gallons or less per day of domestic wastewater only;

(3) Water well construction permit applications for any well from which the Department determines that the withdrawal under normal operations will not exceed 1,000,000 gallons per day.

The Secretary may act without public notice on any permit application that is specified in this subsection.

(d) Advertisements required under subsection (b) of this section may be placed by persons desiring to obtain a permit under § 6003 of this title, provided the advertisement meets the requirements contained in subsection (b) of this section and any additional requirements as may be specified by the Department.

7 Del. C. 1953, § 6004; 59 Del. Laws, c. 212, § 1; 59 Del. Laws, c. 537, § 1; 61 Del. Laws, c. 503, § 3; 64 Del. Laws, c. 146, §§ 1-3; 64 Del. Laws, c. 472, § 1; 68 Del. Laws, c. 124, § 4; 70 Del. Laws, c. 53, § 1; 70 Del. Laws, c. 186, § 1; 73 Del. Laws, c. 117, § 2; 78 Del. Laws, c. 185, § 1.;

§ 6005 Enforcement; civil and administrative penalties; expenses.

(a) The Secretary shall enforce this chapter.

(b) Whoever violates this chapter or any rule or regulation duly promulgated thereunder, or any condition of a permit issued pursuant to § 6003 of this title, or any order of the Secretary, shall be punishable as follows:

(1) If the violation has been completed, by a civil penalty imposed by Superior Court of not less than $1,000 nor more than $10,000 for each completed violation. Each day of continued violation shall be considered as a separate violation. The Superior Court shall have jurisdiction of a violation in which a civil penalty is sought. If the violation has been completed and there is a substantial likelihood that it will reoccur, the Secretary may also seek a permanent or preliminary injunction or temporary restraining order in the Court of Chancery.

(2) If the violation is continuing, the Secretary may seek a monetary penalty as provided in paragraph (b)(1) of this section. If the violation is continuing or is threatening to begin, the Secretary may also seek a temporary restraining order or permanent injunction in the Court of Chancery. In his or her discretion, the Secretary may endeavor by conciliation to obtain compliance with all requirements of this chapter. Conciliation shall be giving written notice to the responsible party:

a. Specifying the complaint;

b. Proposing a reasonable time for its correction;

c. Advising that a hearing on the complaint may be had if requested by a date stated in the notice; and

d. Notifying that a proposed correction date will be ordered unless a hearing is requested.

If no hearing is requested on or before the date stated in the notice, the Secretary may order that the correction be fully implemented by the proposed date or may, on his or her own initiative, convene a hearing, in which the Secretary shall publicly hear and consider any relevant submission from the responsible party as provided in § 6006 of this title.

(3) In his or her discretion, the Secretary may impose an administrative penalty of not more than $10,000 for each day of violation. Prior to assessment of an administrative penalty, written notice of the Secretary's proposal to impose such penalty shall be given to the violator, and the violator shall have 30 days from receipt of said notice to request a public hearing. Any public hearing, if requested, right of appeal and judicial appeal shall be conducted pursuant to §§ 6006-6009 of this title. Assessment of an administrative penalty shall be determined by the nature, circumstances, extent and gravity of the violation, or violations, ability of violator to pay, any prior history of such violations, the degree of culpability, economic benefit or savings (if any) resulting from the violation and such other matters as justice may require. Simultaneous violations of more than 1 pollutant or air contaminant parameter or of any other limitation or standard imposed under this chapter shall be treated as a single violation for each day. In the event of nonpayment of the administrative penalty after all legal appeals have been exhausted, a civil action may be brought by the Secretary in Superior Court for collection of the administrative penalty, including interest, attorneys' fees and costs, and the validity, amount and

appropriateness of such administrative penalty shall not be subject to review.

(c)(1) Whenever the Secretary determines that any person has violated this chapter, or a rule, or regulation, or condition of a permit issued pursuant to § 6003 of this title, or an order of the Secretary, said person shall be liable for all expenses incurred by the Department:

a. In abating the violation; or

b. Controlling a pollution incident related to the violation; or

c. Cleanup and restoration of the environment; or

d. The costs incurred by the Department in recovering such expenses.

Such expenses shall include, but not be limited to, the costs of investigation, legal fees and assistance, public hearings, materials, equipment, human resources, contractual assistance and appropriate salary and overtime pay for all state employees involved in the effort notwithstanding merit system laws, regulations or rules to the contrary. The Secretary shall submit a detailed billing of expenses to the liable person.

(2) In the event the liable person desires to challenge the detailed billing submitted by the Secretary, such person shall, within 20 days of receipt of the detailed billing request an administrative hearing before the Secretary. Testimony at the administrative hearing shall be under oath and shall be restricted to issues relating to:

a. The finding of violation; and

b. The billing of expenses submitted by the Secretary.

A verbatim transcript of testimony at the hearing shall be prepared and shall, along with the exhibits and other documents introduced by the Secretary or other party, constitute the record. The Secretary shall make findings of fact based on the record, and enter an order which shall contain reasons supporting the decision. An appeal of the decision of the Secretary may be perfected to Superior Court within 30 days of the decision of the Secretary. In lieu of holding an administrative hearing on the detailed billing, or in the event a liable person fails or refuses to pay any of the expenses listed in the detailed billing, the Secretary may seek to compel payment through the initiation of a civil action in any court of competent jurisdiction within the State of Delaware. This subsection shall not be affected by the appeal provisions of § 6008 of this title.

(d) Any expenses or 75 percent of civil or administrative penalties collected by the Department under this section are hereby appropriated to the Department to carry out the purposes of this chapter; however any expenditure or transfer must be approved by the Director of the Office of Management and Budget and the Controller General. The Department shall submit quarterly reports on the progress of the expenditures and/or projects. All expenditures must be recommended by the Department and approved by the Secretary. All penalty funds will be deposited in the Penalty Fund Account. All of the penalty fund expenditures made by the Department of Natural Resources and Environmental Control shall be reported annually to the Joint Finance Committee in the Department's annual budget presentation. Included in this presentation shall be an explanation of the process used to select the recipients of penalty fund money.

(e) Penalties or fines created by this section may be tripled with respect to any person or entity that was designated a chronic violator pursuant to § 7904 of this title at the time that the act leading to the penalty or fine occurred.

7 Del. C. 1953, § 6005; 59 Del. Laws, c. 212, § 1; 59 Del. Laws, c. 537, §§ 2, 3; 66 Del. Laws, c. 163, §§ 1, 2; 70 Del. Laws, c. 186, § 1; 73 Del. Laws, c. 318, § 2; 74 Del. Laws, c. 37, § 1; 74 Del. Laws, c. 203, § 1; 75 Del. Laws, c. 88, § 21(4); 75 Del. Laws, c. 357, § 1; 78 Del. Laws, c. 177, § 18.;

§ 6006 Public hearings.

Any public hearing held by the Secretary concerning any regulation or plan, permit application, alleged violation or variance request shall be conducted as follows:

(1) For any hearing on an application for a permit or an alleged violation or variance request, notification shall be served upon the applicant or alleged violator as summonses are served or by registered or certified mail not less than 20 days before the time of said hearing. Not less than 20 days' notice shall also be published in a newspaper of general circulation in the county in which the activity is proposed or the alleged violation has occurred and in a daily newspaper of general circulation throughout the State.

(2) For a hearing on a regulation or plan proposed for adoption, notification shall be published in a newspaper of general circulation in each county and in a newspaper of general circulation in the State. Such notification shall include:

a. A brief description of the regulation or plan;

b. Time and place of hearing; and

c. Time and place where copies of the proposed regulation may be obtained and a copy of the plan is available for public scrutiny.

Such notice shall also be sent to any persons who have requested such notification from the Department by providing the name and mailing address.

(3) The permit applicant or the alleged violator or party requesting a variance may appear personally or by counsel at the hearing and produce any competent evidence in his or her behalf. The Secretary or his or her duly authorized designee may administer oaths, examine witnesses and issue, in the name of the department, notices of hearings or subpoenas requiring the testimony of witnesses and production of books, records or other documents relevant to any matter involved in such hearing; and subpoenas shall also be issued at the request of the applicant or alleged violator or party requesting a variance. In case of contumacy or refusal to obey a notice of hearing or subpoena under this section, the Superior Court in the county in which the hearing is held shall have jurisdiction upon application of the Secretary, to issue an order requiring such person to appear and testify or produce evidence as the case may require.

(4) A record from which a verbatim transcript can be prepared shall be made of all hearings and shall, also with the exhibits and other documents introduced by the Secretary or other party, constitute the record. The expense of preparing any transcript shall be borne by the person requesting it. The Secretary shall make findings of fact based on the record. The Secretary shall then enter an order that will best further the purpose of this chapter, and the order shall include reasons. The Secretary shall promptly give written notice to the persons affected by such order.

(5) The Secretary may establish a fee schedule for applications and hearings, and may collect from the applicant or from a violator finally adjudged guilty, the necessary expenses of the Department for conducting the hearing, or a reasonable fee for processing an application, or both. Any fees collected under this chapter are hereby appropriated to the Department to carry out the purposes of this chapter. The Secretary shall report through the annual budget process the receipt, proposed use and disbursement of these funds.

7 Del. C. 1953, § 6006; 59 Del. Laws, c. 212, § 1; 63 Del. Laws, c. 322, § 105(a); 64 Del. Laws, c. 62, § 1; 68 Del. Laws, c. 148, § 1; 70 Del. Laws, c. 186, § 1.;

§ 6007 Establishment of Environmental Appeals Board.

(a) There is hereby created an Environmental Appeals Board which shall consist of 7 Delaware residents, appointed by the Governor with the advice and consent of the Senate. The Chairperson shall be appointed by the Governor and serve at the Governor's pleasure. Each county shall be represented by 2 members. Registered members of either major political party shall not exceed the other major political party by more than 1. The term of each member appointed shall be 3 years. Vacancies in Board membership shall be filled by the Governor for the remainder of the unexpired term.

(b) The Board is a quasi-judicial review board which is constituted in order to hear appeals of decisions of the Secretary. The Board or its designee may issue subpoenas by certified mail for witnesses or evidence, administer oaths to witnesses and conduct prehearing conferences for the simplification of issues by consent, for the disposal of procedural requests or disputes and to regulate and expedite the course of the hearing.

(c) A simple majority of the Board shall constitute a quorum. A simple majority of those members of the Board present shall be required to override the decision of the Secretary. The Board shall schedule, but not necessarily conduct, a hearing within 30 days following the receipt of the appeal. In any event, the Board shall conduct, but not necessarily complete, the hearing within 180 days following the receipt of the appeal unless the parties agree otherwise. The Board may verbally announce the decision at the conclusion of the hearing. A written decision shall be mailed to the parties by certified mail within 90 days after the completion of the hearing. If the Board fails to conduct the hearing or to issue the written opinion as required, the decision of the Secretary shall be a final decision for the purposes of appeal.

(d) Any member of the Board with a personal or private financial interest in the outcome of an appeal before the Board shall disqualify himself or herself from any consideration of that matter and shall inform the Chairperson who shall note such interest on the record of the hearing.

(e) Each Board member shall be compensated for such reasonable expenses as travel and meals for each meeting and hearing attended.

(f) The Environmental Appeals Board shall adopt such rules and regulations as are necessary to provide procedures to implement the terms of §§ 6007-6009 of this title, which shall apply to appeals to the Environmental Appeals Board. Prior to adopting any such rules and regulations, the Board shall designate a day, time and place for a public hearing on such proposed rules or for any amendments to existing or proposed rules and regulations. The Board shall give 20 days' notice of such hearing by publication in a newspaper of general circulation in the State and shall make copies of such proposed regulations available to the public upon request. The public hearing on such regulations shall be consistent with the provisions of Chapter 101 of Title 29.

(g) In any appeal to the Board there shall be required a reasonable fee, as established by the General Assembly, to cover such costs as are incurred during the appeal. The fees charged by the Environmental Appeals Board shall be deposited in a special account in the name of the Environmental Appeals Board and shall be used solely for the costs and expenses of that Board in holding its hearings and proceedings.

7 Del. C. 1953, § 6007; 59 Del. Laws, c. 212, § 1; 60 Del. Laws, c. 201, § 1; 68 Del. Laws, c. 86, § 4; 68 Del. Laws, c. 148, § 1; 70 Del. Laws, c. 186, § 1.;

§ 6008 Appeals to Board.

(a) Any person whose interest is substantially affected by any action of the Secretary may appeal to the Environmental Appeals Board within 20 days after receipt of the Secretary's decision or publication of the decision. The Board shall conduct a public hearing for all appeals in accordance with Chapter 101 of Title 29. Deliberations of the Board may be conducted in executive session. Each member who votes shall indicate the nature of his or her vote in the written decision.

(b) Whenever a final decision of the Secretary concerning any case decision, including but not limited to any permit or enforcement action is appealed, the Board shall hold a public hearing in accordance with Chapter 101 of Title 29. The record before the Board shall include the entire record before the Secretary. All parties to the appeal may appear personally or by counsel at the hearing and may produce any competent evidence in their behalf. The Board may exclude any evidence which is plainly irrelevant, immaterial, insubstantial, cumulative or unduly repetitive, and may limit unduly repetitive proof, rebuttal and cross-examination. The burden of proof is upon the appellant to show that the Secretary's decision is not supported by the evidence on the record before the Board. The Board may affirm, reverse or remand with instructions any appeal of a case decision of the Secretary.

(c) Appeals of regulations shall be on the record before the Secretary. The Board may hear new evidence if it is relevant to or clarifies those issues in the record before the Secretary. The Board may exclude any new evidence which is plainly irrelevant, immaterial, insubstantial, cumulative or unduly repetitive. Regulations will be presumed valid, and the burden will be upon the appellant to show that the regulations are arbitrary and capricious, or adopted without a reasonable basis in the record. The Board shall take due account of the Secretary's experience and specialized competence and of the purposes of this chapter in making its determination. The board may affirm, reverse or remand any appeal of regulations promulgated by the Secretary.

(d) The decision of the Board shall be signed by all members who were present at the hearing.

(e) There shall be no appeal of a decision by the Secretary to deny a permit on any matter involving state-owned land including subaqueous lands, except an appeal shall lie on the sole ground that the decision was discriminatory in that the applicant, whose circumstances are like and similar to those of other applicants, was not afforded like and similar treatment.

(f) No appeal shall operate to stay automatically any action of the Secretary, but upon application, and for good cause, the Secretary or the Court of Chancery may stay the action pending disposition of the appeal.

(g) At any time after the appeal to the Board, the parties may, by stipulation, proceed directly to Superior Court, in which case the Court may affirm, reverse or remand the Secretary's decision based on the

record before the Secretary and the Board and whatever other evidence the parties may submit by stipulation. The standard of review for such an appeal shall be governed by subsections (b) and (c) of this section.

(h) In those circumstances in which the Board concludes that an immediate and expedited review of a decision of the Secretary is appropriate or necessary, the Board may hold a public hearing on the appeal at the earliest possible time and issue a decision on such appeal. In such a case, the notice requirements of this section and Chapter 101 of Title 29 do not apply, and the Board shall give advance notice of the hearing only to the extent reasonably possible.

7 Del. C. 1953, § 6008; 59 Del. Laws, c. 212, § 1; 59 Del. Laws, c. 537, § 4; 67 Del. Laws, c. 377, § 1; 68 Del. Laws, c. 148, § 1; 70 Del. Laws, c. 186, § 1.;

§ 6009 Appeal from the Board's decision.

(a) Any person or persons, jointly or severally, or any taxpayer, or any officer, department, board or bureau of the State, aggrieved by any decision of the Board, may appeal to the Superior Court in and for the county in which the activity in question is wholly or principally located by filing a petition, duly verified, setting forth that such decision is illegal, in whole or in part, specifying the grounds of the illegality. Any such appeal shall be perfected within 30 days of the receipt of the written opinion of the Board.

(b) The Court may affirm, reverse or modify the Board's decision. The Board's findings of fact shall not be set aside unless the Court determines that the records contain no substantial evidence that would reasonably support the findings. If the Court finds that additional evidence should be taken, the Court may remand the case to the Board for completion of the record.

(c) No appeal shall operate to stay automatically any action of the Secretary, but upon application, and for good cause, the Board or the Court of Chancery may stay the action pending disposition of the appeal.

7 Del. C. 1953, § 6009; 59 Del. Laws, c. 212, § 1; 59 Del. Laws, c. 537, §§ 5, 6; 68 Del. Laws, c. 148, § 1.;

§ 6010 Rules and regulations; plans.

(a) The Secretary may adopt, amend, modify or repeal rules or regulations, or plans, after public hearing, to effectuate the policy and purposes of this chapter. No such rule or regulation shall extend, modify or conflict with any law of this State or the reasonable implications thereof.

(b) The Secretary shall formulate, amend, adopt and implement, after a public hearing, a statewide comprehensive water plan for the immediate and long-range development and use of the water resources of the State.

(c) The Secretary may formulate, amend, adopt and implement, after public hearing, a statewide air resources management plan to achieve the purpose of this chapter and comply with applicable federal laws and regulations. Any implementation plan in effect at the time of enactment of this chapter shall continue to be in effect unless amended or repealed by the Secretary.

(d) The Secretary may formulate, amend, adopt and implement, after public hearing, a statewide water pollution management plan to achieve the purposes of this chapter and comply with applicable federal laws and regulations. Any implementation plan in effect at the time of the enactment of this chapter shall continue to be in effect unless amended or repealed by the Secretary.

(e) The Secretary shall formulate, amend, develop and implement, after public hearing, a State solid waste plan in accordance with the requirements of subtitle D of the Resource Conservation and Recovery Act of 1976 (P.L. 94-580) as amended [42 U.S.C. § 6941 et seq.], and any regulations thereunder, hereafter referred to as RCRA: Provided, however, that such plan shall be formulated in coordination with the Delaware Solid Waste Authority and shall include provisions of the statewide solid waste management plan adopted by the Delaware Solid Waste Authority pursuant to § 6403(j) of this title which reflect the applicable functions and activities of the Delaware Solid Waste Authority under Chapter 64 of this title.

(f) The Secretary:

(1) Shall approve the allocation and use of water in the State on the basis of equitable apportionment;

(2) Shall approve all new plans and designs of all impounding water facilities by any state, county, municipal, public or private water user within the State pursuant to subchapter V of this chapter; and

(3) May require reports from all Delaware water users as to a description of their water facilities, and past and present records of water use.

(g)(1) The Secretary, after notice and public hearing, shall promulgate regulations containing criteria for determining which facilities shall be classified as sanitary landfills and which shall be classified as open dumps within the meaning of this chapter. At a minimum such criteria shall provide that a facility may be classified as a sanitary landfill and not an open dump only if there is no reasonable probability of adverse effects on health or the environment from disposal of solid waste at such facility. Such regulations may provide for the classification of the types of sanitary landfills.

(2) On the date as determined under paragraph (g)(3) of this section below, the open dumping of solid waste or hazardous waste and the establishment of new open dumps is prohibited and all solid waste, including solid waste originating in other states but not including hazardous waste, shall be utilized for resource recovery or disposed of in sanitary landfills, within the meaning of this chapter, or otherwise disposed of in an environmentally sound manner, except in the case of any practice or disposal of solid waste under a timetable or schedule for compliance established under paragraph (g)(5) of this section below.

(3) Except as provided in paragraphs (g)(4) and (5) of this section below, the prohibition contained in paragraph (g)(2) of this section above shall take effect on the date of promulgation of regulations containing criteria under paragraph (g)(1) of this section or on the date of approval of the state solid waste plan under § 4007 of RCRA [42 U.S.C. § 6947], whichever is later.

(4) To assist in the formulation of the state solid waste plan, the Secretary, utilizing the criteria adopted pursuant to paragraph (g)(1) of this section above, shall develop and publish an inventory of all disposal facilities or sites in Delaware which are open dumps within the meaning of this chapter. With respect to any active disposal facilities or sites the Secretary shall coordinate the development of the inventory with the Delaware Solid Waste Authority. Prior to publication of the inventory the Secretary shall provide written notice of the proposed open dump designation to the owner and operator of the disposal facility or site which notice shall contain a detailed statement of deficiencies under the criteria adopted pursuant to paragraph (g)(1) of this section above. Upon receipt of notification the owner or operator shall, within 30 days, be entitled to request a public hearing before the Secretary pursuant to § 6006 of this title to challenge the designation; otherwise, the designation shall become a final decision of the Secretary. With 60 days of publication of the open dump inventory, the owner or operator of a disposal facility or site may apply to the Secretary for a timetable or schedule for compliance or closure under paragraph (g)(5) of this section below. During the pendency of any such application and prior to final action and disposition thereon the prohibition set forth in paragraph (g)(3) of this section above shall not apply with respect to that site. Upon application by the owner or operator, a site or facility may be removed from the open dump inventory after a determination by the Secretary that the basis upon which the site was designated as an open dump no longer exists. Any such application to remove a site or facility from the inventory shall be advertised in accordance with § 6004(b) of this title.

(5) All existing disposal facilities or sites for solid waste which are open dumps listed in the inventory under paragraph (g)(4) of this section shall comply with such measures as may be required by the Secretary, consistent with the requirements of RCRA [42 U.S.C. § 6901 et seq.], for closure or upgrading. The Secretary shall establish a timetable or schedule for compliance for such practice or disposal of solid waste which specifies a schedule of remedial measures, including an enforceable sequence of actions or operations, leading to compliance with the prohibition on open dumping of solid waste within a reasonable time (not to exceed 5 years) from the date of publication of criteria under paragraph (g)(1) of this section.

(h)(1) Subject to subsection (f) of this section, the Secretary shall establish procedures for the issuance of water allocation permits which shall be granted concurrently with any license or permit to construct, extend or operate an irrigation well or surface water intake on any farm or farmland in the State. A water allocation permit issued pursuant to this subsection shall reserve the right of the person to whom the permit is issued to utilize up to 20 acre-inches per year, but not more than 10 acre-inches per month.

(2) For the purposes of this subsection:

a. An "acre-inch" of water is the amount of water required to cover 1 acre of land to a depth of 1 inch and is equal in volume to 27,154 gallons of water.

b. An "irrigation well" is an agricultural well which is used exclusively for the watering of lands or crops other than household lawns and gardens.

(i) The Secretary shall waive the requirements of § 6004(b) of this title for irrigation wells if:

(1) The permit application is submitted between and April 1 and October 1, inclusive;

(2) The permit application is to replace an existing irrigation well;

(3) The existing well has a valid allocation permit; and

(4) The replacement well will not exceed allocation permitted amounts.

(j) An emergency circumstance is deemed to exist if a well will replace an existing well and if the Department of Agriculture and/or the Department of Natural Resources and Environmental Control determines that the lack of water or delay in obtaining water poses an immediate and significant danger to the health or welfare of persons or their property, or if 1 or both of the Departments have determined that other exceptional circumstances exist. Verbal approval must be given for the installation of a well if an emergency circumstance exists, provided that:

(1) Within 72 hours after the verbal issuance of a permit number under emergency circumstances, the applicant submits to the Department a well permit application and well completion report, which must include the permit number.

(2) All wells constructed under emergency circumstances must be constructed in conformance with all applicable regulations and officially established policies.

(k) If an emergency circumstance exists when State offices are closed, a well may be constructed, providing that it replaces an existing well and that the Department is notified verbally on the first working day following such action. A well permit application, including the well permit number, the appropriate application fee, and a well completion report must be submitted within 72 hours after notification.

(l) The following persons shall serve on an advisory committee that oversees the agriculture irrigation well procedures:

(1) The Secretary of Agriculture, or the Secretary's designee;

(2) The Secretary of the Department of Natural Resources and Environmental Control, or the Secretary's designee;

(3) One person to represent the Delaware Farm Bureau;

(4) One person to represent the Fruit and Vegetable Growers Association of Delaware;

(5) One person who is an irrigation dealer;

(6) One person who is a commercial irrigation well driller;

(7) One person from the University of Delaware Water Resources Agency; and

(8) One person from the Delaware Geological Survey.

The Secretary of Agriculture and the Secretary of the Department of Natural Resources and Environmental Control shall determine that the committee members meet the above descriptions. The Secretary of Agriculture, or the Secretary's designee, shall serve as the chairperson of the advisory oversight committee.

7 Del. C. 1953, § 6010; 59 Del. Laws, c. 212, § 1; 60 Del. Laws, c. 288, § 2; 63 Del. Laws, c. 248, §§ 2-4; 67 Del. Laws, c. 344, § 4; 68 Del. Laws, c. 124, § 5; 73 Del. Laws, c. 191, § 1; 78 Del. Laws, c. 185, § 2.;

§ 6011 Variance.

(a) The Secretary may, upon application of a person (except an application concerning (1) a source of water or a sewerage facility for 3 or fewer families or (2) open burning, on which the Secretary may act without public notification), grant a variance to that person from any rule or regulation promulgated pursuant to this chapter after following the notice and hearing procedure set forth in § 6004 of this title.

(b) The variance may be granted if the Secretary finds that:

(1) Good faith efforts have been made to comply with this chapter;

(2) The person applying is unable to comply with this chapter because the necessary technology or other alternative methods of control are not available or have not been available for a sufficient period of time or the financial cost of compliance by using available technology is disproportionately high with respect to the benefits which continued operation would bestow on the lives, health, safety and welfare of the occupants of this State and the effects of the variance would not substantially and adversely affect the policy and purposes of this chapter;

(3) Any available alternative operating procedure or interim control measures are being or will be used to reduce the impact of such source on the lives, health, safety and/or welfare of the occupants of this State; and

(4) The continued operation of such source is necessary to national security or to the lives, health, safety or welfare of the occupants of this State.

(c) The Secretary shall publish his or her decision, except a decision involving (1) a source of water or a sewerage facility for 3 or fewer families or (2) open burning, and the nature of the variance, if granted, and the conditions under which it was granted. The variance may be made effective immediately upon publication.

(d) Any party may appeal a decision of the Secretary on a variance request to the Environmental Appeals Board under § 6008 of this title within 15 days after the Secretary publishes his or her decision.

(e) No variance can be in effect longer than 1 year but may be renewed after another hearing pursuant to this section.

(f) The granting of a variance shall not in any way limit any right to proceed against the holder for any violation of the variance. This chapter, or any rule, or regulation, which is not incorporated in the variance provisions, shall remain in full effect.

(g) Notwithstanding other provisions of this section, the Secretary is not authorized to approve requests for fundamentally different factor variances from categorical pretreatment standards promulgated by the Administrator of the United States Environmental Protection Agency pursuant to § 307(b) or (c) of the Federal Water Pollution Control Act, as amended, 33 U.S.C. § 1317(b) or (c). The Secretary is authorized to accept and review such variance requests, and, upon review, deny such request or recommend that the Administrator of the United States Environmental Protection Agency approve such a variance request.

7 Del. C. 1953, § 6011; 59 Del. Laws, c. 212, § 1; 59 Del. Laws, c. 537, §§ 8, 9; 62 Del. Laws, c. 414, § 1; 70 Del. Laws, c. 186, § 1.;

§ 6012 Temporary emergency variances.

(a) Notwithstanding § 6011 of this title, other than subsection (g) of that section, the Secretary may grant a variance to any rules or regulations promulgated pursuant to this chapter, for a period not to exceed 60 days. The request for a temporary emergency variance shall be submitted in writing, setting forth the reasons for the request.

(b) A temporary emergency variance may be granted only after a finding of fact by the Secretary that:

(1) Severe hardship would be caused by the time period involved in obtaining variances pursuant to § 6011 of this title;

(2) The emergency was of such an unforeseeable nature so as to preclude, because of time limitations, an application under § 6011 of this title;

(3) The conditions set forth in § 6011(b)(1)-(4) of this title are satisfied.

(c) Temporary emergency variances granted pursuant to this section may not be extended more than once.

(d) The granting of any temporary emergency variance shall be published within 5 days of the granting of said variance.

7 Del. C. 1953, § 6012; 59 Del. Laws, c. 212, § 1; 59 Del. Laws, c. 537, § 10; 62 Del. Laws, c. 414, § 2.;

§ 6013 Criminal penalties.

(a) Any person who wilfully or negligently:

(1) Violates § 6003 of this title, or violates any condition or limitation included in a permit issued pursuant to § 6003 of this title, or any variance condition or limitation, or any rule or regulation, or any order of the Secretary; or

(2) Violates any requirements of a statute or regulation respecting monitoring, recording and reporting of a pollutant or air contaminant discharge; or

(3) Violates a pretreatment standard or toxic effluent standard with respect to introductions of pollutants into publicly owned treatment works

shall be punished by a fine of not less than $2,500 nor more than $25,000 for each day of such violation.

(b) Any person who intentionally, knowingly, or recklessly:

(1) Makes any false statement, representation or certification in any application, record, report, plan or other document filed or required to be maintained under this chapter, or under any permit, rule, regulation or order issued under this chapter; or

(2) Who falsifies, tampers with or renders inaccurate any monitoring device or method required to be maintained under this chapter,

shall upon conviction be punished by a fine of not less than $500 nor more than $10,000 or by imprisonment for not more than 6 months, or both.

(c) Any person who intentionally or knowingly:

(1) Violates § 6003 of this title, or violates any condition or limitation included in a permit issued pursuant to § 6003 of this title, or any variance condition or limitation, or any rule or regulation, or any order of the Secretary; or

(2) Violates any requirements of a statute or regulation respecting monitoring, recording and reporting of a pollutant or air contaminant discharge; or

(3) Violates a pretreatment standard or toxic effluent standard with respect to introductions of pollutants into publicly owned treatment works,

and who causes serious physical injury to another person or serious harm to the environment as one result of such conduct, shall be guilty of a class D felony and shall, upon conviction, be sentenced in compliance with the sentencing guidelines established for class D felonies in § 4205 of Title 11.

(d) Any person:

(1) Who intentionally or knowingly makes any false statement, representation or certification in any application, record, report, plan or other document filed or required to be maintained under this chapter, or under any permit, rule, regulation or order issued under this chapter; or

(2) Who falsifies, tampers with or intentionally or knowingly causes to be rendered inaccurate any monitoring device or method required to be maintained under this chapter,

and who causes serious physical injury to another person or serious harm to the environment as 1 result of such conduct, shall be guilty of a class D felony and shall, upon conviction, be sentenced in compliance with the sentencing guidelines established for class D felonies in § 4205 of Title 11.

(e) Any officer of any corporation, manager of any limited liability company, or general partner of any limited partnership conducting business in the State who intentionally or knowingly authorizes or directs said business entity or its employees or agents to:

(1) Falsify or conceal any material fact required to be disclosed to the Department;

(2) Destroy, conceal or alter any records that the corporation is required by this title, the Department's regulations, or an order of the Department to maintain; or

(3) Commit any act in violation of this title or rules promulgated by the Department;

shall upon conviction be punished by a fine of not less than $500 nor more than $10,000 or by imprisonment for not more than 6 months, or both. If an act described in this subsection causes serious physical injury to another person or serious harm to the environment as one result of such an act, the officer, manager or general partner committing the act shall be guilty of a class D felony and shall, upon conviction be sentenced in compliance with the sentencing guidelines established for class D felonies in § 4205 of Title 11. Nothing in this subsection shall be read to establish any additional elements for conviction of the criminal offenses described in subsections (a) through (d) of this section.

(f) Each day of violation with respect to acts or omissions described in this section shall be considered as a separate violation.

(g) The Superior Court shall have exclusive jurisdiction over prosecutions brought pursuant to subsections (a)-(e) of this section. Prosecutions pursuant to subsection (h) of this section may be brought in the jurisdiction of the Courts of the Justices of the Peace.

(h) Whoever violates this chapter, or any rule or regulation promulgated thereunder, or any rule or regulation in effect as of July 26, 1974, or any permit condition, or any order of the Secretary, shall:

(1) For the first conviction, be fined not less than $100 nor more than $500 for each day of violation;

(2) For a subsequent conviction for the same offense within a 10-year period, be fined not less than $500 nor more than $1,500 for each day of violation; and

(3) In addition to the penalties provided in paragraphs (h)(1) and (h)(2) of this section, if the offense involves the failure to acquire a permit as required under this chapter, the offender shall be assessed the cost of the permit, plus a 25 percent surcharge, in addition to the fine.

(i) Any person prosecuted pursuant to subsection (h) of this section shall not be prosecuted for the same offense under subsections (a)-(e) of this section.

(j) The terms "intentionally," "knowingly," "recklessly," "negligently," and "serious physical injury," as used in this section, shall have the meanings assigned to them by Chapter 2 of Title 11.

(k) The term "serious harm to the environment" shall mean damage to the air, water or soil which has or will, beyond a reasonable doubt, cause serious physical injury to any persons working at the facility in question or persons within the State.

(l) It is an affirmative defense to a prosecution that the specific conduct charged was freely and knowingly consented to by the person endangered and that the danger and conduct charged were reasonably foreseeable hazards of:

(1) An occupation, a business or a profession; or

(2) Medical treatment or medical or scientific experimentation conducted by professionally approved methods and such other person had been made aware of the risks involved prior to giving consent.

The defendant may establish an affirmative defense under this subsection by a preponderance of the evidence. The provisions of this subsection are subject to the restrictions enumerated at § 453 of Title 11.

(m) All general defenses affirmative defenses, and bars to prosecution that may apply with respect to other criminal offenses may apply under this section.

7 Del. C. 1953, § 6013; 59 Del. Laws, c. 212, § 1; 59 Del. Laws, c. 537, §§ 11-13; 69 Del. Laws, c. 366, § 1; 71 Del. Laws, c. 140, § 1; 74 Del. Laws, c. 170, §§ 2, 3; 75 Del. Laws, c. 275, §§ 1-5; 76 Del. Laws, c. 403, §§ 2, 3.;

§ 6014 Regulatory and compliance information, facility performance and public information.

(a) The Department shall develop an Environmental Information System that will include general information about facilities and sites under the Department's regulatory jurisdiction as defined by Chapters 40, 60, 62, 63, 66, 70, 72, 74, 77, 78, and 91 of this title and Chapter 63 of Title 16. The Environmental Information System shall include information on all such facilities and sites related to permitting requirements, emissions and discharge monitoring and reporting data, compliance inspections, violations and enforcement actions. The System shall provide the public with information that indicates when a facility has been inspected, what violations are detected, when the facility comes into compliance, and any enforcement action that results from violations at the facility.

(b) The Secretary shall create or contract with a third party to create a central unified notification system to notify the public in a timely manner of environmental releases. That system shall be designed in a such a manner as to ensure the notification, within 12 hours after the Department is informed of an environmental release, of:

(1) The State Representative and State Senator in whose district the release occurred;

(2) Any community or civic group the majority of whose membership lives within 5 miles of the reporting facility that has identified itself to the Department as an entity wishing to receive notice pursuant to this subsection; and

(3) Any individual who lives within 5 miles of the reporting facility and who has identified himself or herself to the Department as a person wishing to receive notice pursuant to this subsection.

(c) The facility from which an environmental release has occurred shall pay to the Department the cost of the Department's notification under subsection (b) of this section. Such cost shall include a prorated share of the annual fixed costs incurred by the Department for the maintenance of the notification system created pursuant to subsection (b) of this section, and a prorated share of the initial development costs of the notification system to be equally distributed over the first 5 years of the system's existence, both to be determined in the sole discretion of the Department. The facility shall make payment under this subsection within 30 days of receiving written notice of the amount of payment due. Failure to make

payment pursuant to this subsection in a timely fashion shall constitute a violation punishable under § 6005 of this title. For purposes of this section facility shall mean any building, structure, installation, equipment, pipe or pipeline (including any pipe into a sewer or publicly owned treatment works), wastewater treatment plant, pit, pond, lagoon, impoundment, landfill, storage container, or any site or area where an environmental release has occurred.

(d) Any records, reports or information obtained pursuant to this chapter and any permits, permit applications and related documentation shall be available to the public for inspection and copying; provided, that upon a showing satisfactory to the Secretary by any person that such records, reports, permits, permit applications, documentation or information, or any part thereof (other than effluent data) would, if made public, divulge methods or processes entitled to protection as trade secrets of such person, the Secretary shall consider, treat and protect such record, report or information, or part thereof, as confidential; provided further, however:

(1) That any such record, report or information accorded confidential treatment may be disclosed or transmitted to other officers, employees or authorized representatives of this State or of the United States concerned with carrying out this chapter or when relevant in any proceeding to effectuate the purpose of this chapter; and

(2) That any report environmental release, air contaminant or water pollutant emissions may be made available to the public as reported and as correlated with any applicable emission standards or limitations.

7 Del. C. 1953, § 6014; 59 Del. Laws, c. 212, § 1; 59 Del. Laws, c. 537, § 14; 70 Del. Laws, c. 186, § 1; 73 Del. Laws, c. 117, § 4.;

§ 6015 Interference with Department personnel.

No person shall obstruct, hinder, delay or interfere with, by force or otherwise, the performance by Department personnel of any duty under this chapter, or any rule or regulation or order or permit or decision promulgated or issued thereunder.

7 Del. C. 1953, § 6015; 59 Del. Laws, c. 212, § 1.;

§ 6016 Departmental investigations; witnesses; oaths; attendance.

In furtherance of the policy and purposes of this chapter, the Secretary may make or cause to be made any investigation or study which is, in his or her opinion, necessary for the purpose of enforcing this chapter. For such purposes the investigative officer designated by the Secretary may subpoena witnesses and the production of documents and compel their testimony. Testimony received at a Departmental investigation shall be under oath and open to the public. Findings of these investigations or studies shall be made public.

7 Del. C. 1953, § 6016; 59 Del. Laws, c. 212, § 1; 70 Del. Laws, c. 186, § 1.;

§ 6017 Sealing noncomplying equipment.

(a) The Department may seal, after consultation with the Attorney General, any source required to have a permit which is installed, altered, used or operated without such a permit or which is in violation of a cease and desist order.

(b) If the equipment is sealed, no person shall tamper with or remove the seal from any equipment so sealed. Violation of this provision shall make the violator upon conviction liable to punishment as provided in § 6005 of this title.

(c) A seal may be removed from equipment only upon receipt of written authorization from the Department. The Department shall order removal of the seal after the reason(s) which caused the sealing has been corrected.

7 Del. C. 1953, § 6017; 59 Del. Laws, c. 212, § 1.;

§ 6018 Cease and desist order.

The Secretary shall have the power to issue an order to any person violating any rule, regulation or order or permit condition or provision of this chapter to cease and desist from such violation; provided, that any cease and desist order issued pursuant to this section shall expire (1) after 30 days of its issuance, or (2) upon withdrawal of said order by the Secretary, or (3) when the order is suspended by an injunction, whichever occurs first.

7 Del. C. 1953, § 6018; 59 Del. Laws, c. 212, § 1.;

§ 6019 Voluntary compliance.

Nothing in this chapter shall prevent the Department from making efforts to obtain voluntary compliance by way of warning, notice or other educational means; this section does not, however, require that such voluntary methods be used before proceeding by way of compulsory enforcement.

7 Del. C. 1953, § 6019; 59 Del. Laws, c. 212, § 1.;

§ 6020 Liberal construction.

This chapter, being necessary for the welfare of the State and its inhabitants, shall be liberally construed in order to preserve the land, air and water resources of the State.

7 Del. C. 1953, § 6020; 59 Del. Laws, c. 212, § 1.;

§ 6021 Federal aid; other funds.

The Department may cooperate with and receive moneys from the federal government, any state or local government or any industry or other source. Such moneys received are appropriated and made available for the study and preservation of land, water and air resources.

7 Del. C. 1953, § 6021; 59 Del. Laws, c. 212, § 1.;

§ 6022 Temporary limits and procedures for hazardous operations.

Where no rule or regulation has been promulgated which sets specific limits for the use, emission or discharge, or operating procedure for hazardous operations, the Secretary may set temporary limits or operating procedure; provided, that the temporary limits or orders shall not be effective for more than 6 months unless adopted into permanent rules and regulations within that period. The affected parties shall be given a hearing before the Department within 30 days, if requested, on any action taken under this section.

7 Del. C. 1953, § 6022; 59 Del. Laws, c. 212, § 1.;

§ 6023 Licensing of water well contractors, pump installer contractors, drillers, drivers, pump installers, septic tank installers, liquid waste treatment plant operators and liquid waste haulers.

(a) No person shall:

(1) Engage in the drilling, boring, coring, driving, digging, construction, installation, removal or repair of a water well or water test well; or

(2) Install, maintain or repair pumping equipment in or from a well without a license issued by the Department, except (i) as, or under the supervision of, a licensed plumber, or (ii) an agricultural well on land owned or leased by the person installing, maintaining or repairing the pumping equipment. For the purpose of this paragraph "agricultural well" shall mean a well used for irrigation of crops, for the watering of livestock or poultry, for aquaculture uses, or for other on-farm purposes where the water is not to be used for human consumption or to service a residential dwelling.

(b) No person shall engaged in the construction, repair, installation or replacement of a septic tank system or any part thereof except as or under the supervision of a licensed septic tank installer.

(c) No person shall operate any liquid waste treatment system without a duly licensed liquid waste treatment plant operator.

(d) No person shall haul, convey or transport any liquid waste in any container without a license issued by the Department.

(e) Any person requiring a license for any activity specified in subsections (a)-(d) of this section shall file an application with the Secretary in such form and accompanied by such information as the Secretary may require by regulation.

(f) The Secretary shall have the exclusive power to grant or deny any license required under subsections (a), (b), (c) and (d) of this section. The Secretary shall adopt regulations setting forth requirements, including an acceptable performance or an examination for obtaining and retaining any such license.

7 Del. C. 1953, § 6023; 59 Del. Laws, c. 212, § 1; 59 Del. Laws, c. 537, § 15; 60 Del. Laws, c. 288, § 3; 64 Del. Laws, c. 472, § 2; 71 Del. Laws, c. 187, § 1.;

§ 6024 Right of entry.

The Secretary, or the Secretary's duly authorized designee, in regulating water pollution, air pollution, solid waste disposal or any other matter over which he or she has jurisdiction pursuant to this chapter,

may enter, at reasonable times, upon any private or public property for the purpose of determining whether a violation exists of a statute or regulation enforceable by him or her, upon given verbal notice, and after presenting official identification to the owner, occupant, custodian or agent of said property.

7 Del. C. 1953, § 6024; 59 Del. Laws, c. 212, § 1; 70 Del. Laws, c. 186, § 1.;

§ 6025 Solid waste.

(a) The Secretary shall have exclusive authority to effectuate the purposes of this chapter concerning solid waste, set forth in § 6001(c)(6) of this title notwithstanding any authority heretofore conferred upon or exercised by any other state agency, but any regulations heretofore duly adopted by any other state agency shall remain in effect and be enforceable by the Secretary unless repealed, amended or modified by the Secretary. Chapter 64 of this title shall not be interpreted to be in conflict with either the purposes of this chapter concerning solid waste as set forth in § 6001(c)(6) of this title, or any regulation promulgated thereunder.

(b) No person shall cause or contribute to the disposal or discharge of solid waste anywhere in the State including any surface or ground water, except:

(1) Through municipal or private solid waste collection systems which have received a permit from the Department; or

(2) In solid waste disposal facilities which have received a permit from the Department; or

(3) In containers specially provided for solid waste collection by any state or municipal agency or private or public group, organization, agency or company which has received a permit from the Department.

(c) Any person charged with violation of subsection (b) of this section, upon conviction, shall be fined not less than $500 nor more than $1500 for each violation and there shall be no suspension of the fine. Each day of continued violation or part thereof shall be considered as a separate offense. The court shall, in addition to levying the fine, order the person convicted to remove or cause to be removed any improperly disposed solid waste. In addition to the fine, the sentencing judge may order community service directed to the removal of solid waste illegally disposed of in the State, and may order restitution for costs incurred in remediation of the solid waste illegally disposed of in the State. The Courts of the Justices of the Peace shall have jurisdiction of offenses under this section.

(d) In the event a motor vehicle is used during or in aid of the disposal or discharge of solid waste in violation of subsection (b) of this section, and the identity of the offender is not otherwise apparent, there shall be a rebuttable presumption that the registered owner of the motor vehicle caused or contributed to such disposal or discharge. The rebuttable presumption set forth in this section shall not apply to operators of buses carrying 9 or more persons.

(e) Any person, who causes or contributes to the disposal or discharge of solid waste anywhere in the State including any surface or ground water, except:

(1) Through municipal or private solid waste collection systems which have received a permit from the Department; or

(2) In solid waste disposal facilities which have received a permit from the Department; or

(3) In containers specially provided for solid waste collection by any state or municipal agency or private or public group, organization, agency or company which has received a permit from the Department,

shall be civilly liable to the owner or person in possession of the real property upon which the solid waste is disposed or discharged, for any property damage sustained, for costs incurred by the owner or person in possession for clean up and proper disposal of the solid waste, and for reasonable attorneys' fees. This cause of action is in addition to any other causes of action, rights and/or remedies the owner or person in possession may have.

7 Del. C. 1953, § 6025; 59 Del. Laws, c. 212, § 1; 59 Del. Laws, c. 537, §§ 16, 17; 60 Del. Laws, c. 288, § 4; 76 Del. Laws, c. 403, §§ 4-7.;

§ 6026 License fees.

(a)(1) The Secretary may establish fees, subject to approval by the General Assembly, for granting any license to any percolation tester, system designer, site evaluator, system inspector, well water contractor, pump installer contractor, well driver, well driller, pump installer, septic tank system installer, liquid waste hauler and liquid waste treatment plant operator.

(2) Notwithstanding any other provisions of law to the contrary, the General Assembly hereby authorizes and approves the following schedule of license fees to be imposed by the Department effective July 1, 2003: Percolation Tester, $40 annual fee; System Designer, $40 annual fee; Site Evaluator, $40 annual fee; System Inspector, $40 annual fee; Septic Tank System Installer, $40 annual fee; and Liquid Waste Hauler; $40 annual fee.

(3) Any fees collected under this subsection are hereby appropriated to the Department to carry out the purposes of this chapter.

(b) The Secretary may establish fees for conveyance of oil and hazardous substance through pipeline after holding public hearings on such a fee schedule.

(c) Any fee collected under this subsection is hereby appropriated to the Department to carry out the purposes of this chapter.

7 Del. C. 1953, § 6026; 59 Del. Laws, c. 212, § 1; 60 Del. Laws, c. 288, § 5; 64 Del. Laws, c. 472, § 3; 74 Del. Laws, c. 139, § 1.;

§ 6027 Change of authority.

The word "Secretary" shall be substituted wherever the words "Water and Air Resources Commission" or "Commission" appear in the Delaware Code and any authority vested in the "Water and Air Resources Commission" or "Commission" is hereby delegated to the Secretary without qualification.

7 Del. C. 1953, § 6027; 59 Del. Laws, c. 212, § 1.;

§ 6028 Report of discharge of pollutant or air contaminant.

(a) Any person who causes or contributes to an environmental release or to the discharge of an air contaminant into the air, or a pollutant, including petroleum substances, into surface water, groundwater or on land, or disposal of solid waste in excess of any reportable quantity specified under either regulations implementing § 102 of the Federal Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended [42 U.S.C. § 9602], § 311 of the Clean Water Act of 1980, as amended [33 U.S.C. § 1321], or Department regulations, whichever restriction is most stringent, shall report such an incident to the Department as soon as the person has knowledge of said environmental release or discharge and activating their emergency site plan if appropriate unless circumstances exist which make such notification impossible. Such initial notification shall be made in person or by telephone to a number specifically assigned by the Department for this purpose and shall include, to the maximum extent practicable, the following information:

(1) The facility name and location of release;

(2) The chemical name or identity of any substance involved in the release;

(3) An indication of whether the substance is an extremely hazardous substance;

(4) An estimate of the quantity of any such substance that was released into the environment;

(5) The time and duration of the release;

(6) The medium or media into which the release occurred;

(7) Any known or anticipated acute or chronic health risks associated with the emergency and, where appropriate, advice regarding medical attention necessary for exposed individuals;

(8) Proper precautions to take as a result of the release, including evacuation (unless such information is readily available to the community emergency coordination pursuant to the emergency plan);

(9) The names and telephone number of the person or persons to be contacted for further information; and

(10) Such other information as the Department may require.

This information shall be made available to the public by posting on the Department's internet web site no later than 1 business day after the release is reported. Discharges in compliance with a validly issued state permit or in compliance with other state and federal regulations are exempt from the reporting requirement.

(b) The Department shall adopt regulations revising the list, referred to in subsection (a) of this section, of pollutants environmental releases or air contaminants and their reportable quantities which are to be reported to the Department.

(c) The reporting requirements under this section are in addition to and not in lieu of, any other discharge reporting requirements found in any other state, federal, county or local government permits, regulations or ordinances.

(d) At the Department's discretion, the Department may require said person to file a written report with the Department describing in detail the facts and circumstances of the discharge and measures proposed to prevent such discharge from occurring in the future.

(e) Discharges of an air contaminant or pollutant (including petroleum substances) that are wholly contained within a building are exempt from the reporting requirements.

(f) Any person who violates this section or any rule or regulation duly promulgated hereunder shall be punishable in accordance with the enforcement provisions of this chapter.

7 Del. C. 1953, § 6028; 59 Del. Laws, c. 212, § 1; 59 Del. Laws, c. 537, § 18; 65 Del. Laws, c. 507, § 1; 66 Del. Laws, c. 221, § 1; 67 Del. Laws, c. 288, § 1; 73 Del. Laws, c. 117, § 3.;

§ 6029 Limitations on scope of chapter.

This chapter shall not apply to or change the existing law in respect to:

(1) The landowner's right to place a dam across a gully on his or her property or across a stream that originates on that landowner's property where provision is made for continued established average minimum flow occurring for 7 consecutive days within the lowest flow year of record; or

(2) The right to build and maintain a dam or construct a pond and divert water from any stream on any stream having a minimum flow of not more than 1/2 million gallons of water per day, and utilize up to 360 acre inches of the impounded water per year so long as such action does not affect the established average minimum flow in the stream below the dam at any time; or

(3) Ponds not larger than 60,000 square feet constructed for purposes of conservation, recreation, propagation and protection of fish and wildlife, watering of stock or fire protection; or

(4) Linear water and wastewater utility projects that have a maximum width of disturbance of 30 feet or less and with a maximum total disturbance of 1 acre or less are: (i) subject to Erosion and Sediment Control regulations adopted by the Department, and (ii) exempt from Stormwater Management regulation adopted by the Department. For the purposes of this section "erosion and sediment control" means the control of solid material, both mineral and organic, during a land disturbing activity, to prevent its transport out of the disturbed area by means of wind, water, gravity, or ice. For the purposes of this section "stormwater management" means:

a. For water quantity control, a system of vegetative, structural, and other measurers that controls the volume and rate of Stormwater runoff which may be caused by land disturbing activities upon the land; and

b. For water quality control, a system of vegetative, structural, and other measures that controls adverse effects on water quality that may be caused by land disturbing activities upon the land.

7 Del. C. 1953, § 6029; 59 Del. Laws, c. 212, § 1; 70 Del. Laws, c. 186, § 1; 80 Del. Laws, c. 392, § 2.;

§ 6030 Approval of water use.

No increase in the amount of water used shall be made by a user without prior approval of the Department.

7 Del. C. 1953, § 6030; 59 Del. Laws, c. 212, § 1.;

§ 6031 Obligation of recipients of water allocations.

(a) The Secretary shall, when the use of water pursuant to an allocation granted under § 6010(f) of this title causes the depletion or exhaustion of an existing use of water, require as a condition of such allocation that the recipient of such allocation take 1 or more of the following actions:

(1) To provide free of charge to the affected person a complete water supply connection to a water supply distribution system and to provide water to the affected person for a term of 3 years in an amount not to exceed 100,000 gallons per year. Water used by the affected person which exceeds 100,000 gallons per year shall be paid for by the affected person on a quarterly basis at the rates established by the Public Service Commission as applicable to the supply of public water in the area in question; and/or

(2) To provide free of charge to the affected person an alternative source of water supply at least equal in quality and quantity to that existing at the time of the granting of the allocation.

(b) The Secretary shall, when an allocation granted pursuant to § 6010(f) of this title causes the depletion or exhaustion of an existing use of water, require as a condition of such allocation that the person receiving such allocation provide free of charge to the affected person an interim water supply which is adequate to meet such person's need. The Secretary shall determine the level of interim water supply sufficient to meet the needs of the affected person and shall further determine the dates on which the interim water supply will commence and terminate.

(c) The Secretary shall, upon receipt of a verified petition setting forth factual allegations that an allocation granted pursuant to § 6010(f) of this title caused the depletion or exhaustion of petitioner's existing use of water, schedule and conduct a hearing to consider the petition. Prior to a hearing under this subsection the Secretary shall give at least 20 days' notification of the date of the hearing to the petitioner and the person granted the allocation. The petitioner or the person granted the allocation may appear personally or by counsel at the hearing and produce any competent evidence. The Secretary or the Secretary's designee may administer oaths, examine witnesses and issue in the name of the Department subpoenae when requested by a petitioner or a person granted an allocation. A verbatim transcript of testimony at the hearing shall be prepared and shall, along with the exhibits and other documents introduced into evidence, constitute the record. The Secretary or the Secretary's designee shall make findings of fact based on the record and issue an order to effectuate such findings and further the purposes of this subsection. Any person whose interest is substantially affected by any order of the Secretary may appeal to the Environmental Appeals Board as provided in § 6008 of this title.

61 Del. Laws, c. 123, § 1; 70 Del. Laws, c. 186, § 1.;

§ 6032 Licensing of site evaluators, percolation testers and on-site system designers and contractors.

(a) No person shall conduct percolation tests or soil evaluations or design, inspect or install on-site wastewater treatment and disposal systems without first having obtained a license from the Secretary. As a prerequisite of licensing, the Secretary may require the person to demonstrate familiarity with test procedures and applicable regulations, and to sign a statement under penalty of perjury that he or she will abide by all statutes and regulations governing the design, inspection and installation of on-site wastewater treatment and disposal systems. In addition, the Secretary may require each licensee or class of licensees to show proof of surety to cover liability for such risks and in such amounts as the Secretary may establish by regulation after public notice in accordance with § 6006 of this title.

(b) Any license by the Secretary shall be for a fixed term not to exceed 3 years and shall be renewable upon application.

(c) The Secretary shall adopt such other regulations after public notice and hearing in accordance with § 6006 of this title as necessary to accomplish the purposes of this title.

(d) The license requirements shall not apply in a county which has been delegated authority to issue septic tank permits pursuant to § 6003(d) of this title.

61 Del. Laws, c. 264, § 1; 65 Del. Laws, c. 361, § 1; 70 Del. Laws, c. 186, § 1; 74 Del. Laws, c. 139, § 2.;

§ 6033 Pretreatment program.

(a) The Secretary shall develop, implement and enforce, and may amend, modify and repeal, a state pretreatment program in compliance with the Federal Water Pollution Control Act, as amended, 33 U.S.C. § 1251 et seq. and regulations promulgated thereunder. In addition to any other authority which the Secretary may exercise for this purpose under this chapter or other chapters of this Code, the Secretary may:

(1) Require any POTW to develop, submit for approval to the Secretary, administer and enforce a POTW pretreatment program;

(2) Review, approve and deny requests for approval of POTW pretreatment programs submitted by a POTW to the Secretary;

(3) Require any POTW, whether or not such POTW is required to develop and enforce a POTW pretreatment program, to develop, submit for approval to the Secretary and enforce specific limits on or prohibitions against discharges of pollutants by industrial users of such POTW to prevent interference with such POTW;

(4) Incorporate conditions into new or existing permits issued to POTWs, such as, but not limited to, compliance schedules, modification clauses, the elements of an approved pretreatment program and

specific limits on or prohibitions against discharges by industrial users into such POTW;

(5) Review, approve and deny requests from POTWs required to develop POTW programs to modify categorical pretreatment standards to reflect removals achieved by such POTW;

(6) Require any POTW or industrial user to submit reports, monitor activities and maintain records to assure compliance with this section and regulations hereunder;

(7) Require compliance by industrial users with pretreatment standards, and discharge limits and prohibitions;

(8) Adopt, amend, modify or repeal rules or regulations to effectuate this section and comply with federal laws and regulations respecting pretreatment. Such rules and regulations shall be adopted, after public hearing, in accordance with § 6010 of this title; provided, however, that the Secretary may incorporate into state regulations without a public hearing a categorical pretreatment standard which has previously been promulgated by regulation by the Administrator of the United States Environmental Protection Agency. Prior to incorporating any such categorical pretreatment standard without a public hearing, the Secretary shall comply with §§ 10115, 10116 and 10118 of Title 29.

(b) The Secretary may seek any relief authorized by this chapter against any industrial user even if a POTW has acted or will act to seek such relief.

62 Del. Laws, c. 414, § 4.;

§ 6034 Sewage system cleansers and additives.

(a) No person shall distribute, sell, offer or expose for sale in this State any sewage system cleanser or additive containing any restricted chemical materials in excess of 1 part per hundred by weight. The penalty for an initial violation of this subsection shall be a formal written warning by the Secretary for the first offense; and for any subsequent violation a fine of $500 shall be imposed.

(b) No person shall use, introduce or apply, or cause any other person to use, introduce or apply in any sewage system, surface waters or groundwaters in this State any sewage system cleanser or additive containing any restricted chemical material or any combination thereof, in excess of 1 part per hundred. The penalty for violating this subsection shall be a fine of $100 for the first offense and $1,000 for each subsequent offense.

(c) No person shall serve water, or a product containing water, to the public from a well ordered closed due to the presence of restricted chemical materials. The penalty for each such violation shall be a fine of not less than $1,000 nor more than $10,000. Any subsequent violation of this subsection by a violator shall result in the closing of the facility until a new and safe source of water is found and is operative in the facility.

(d) The Courts of the Justices of the Peace shall have jurisdiction over offenses under this section.

(e) The Secretary, with assistance from the Division of Public Health, shall:

(1) Conduct a public education program by utilizing mass-media instruments within 90 days of July 17, 1984;

(2) Thereafter, conduct random spot checks in appropriate business concerns to insure that no restricted chemical materials are on sale; and

(3) Take appropriate enforcement action for violations of the sale or use of restricted chemical materials as provided in subsections (a) and (b) of this section.

64 Del. Laws, c. 370, § 2.;

§ 6035 Vessel sewage discharge.

(a) Marina owners/operators for marinas that are located in whole or in part on tidal waters of the State, and that provide dockage for vessels with a portable toilet or toilets or Type III marine sanitation device or devices (MSD), shall provide convenient access, as determined by the Department, to an approved, fully operable and well maintained pumpout facility or facilities and/or dump station or stations for the removal of sewage from said vessels to a Department approved sewage disposal system.

(b)(1) Owners/operators may agree to pool resources for a single pumpout dump station with Departmental approval based on criteria of number and class of vessels, marina locations, cost per pumpout use, and ultimate method of sewage treatment and disposal (i.e. septic system or waste water treatment facility).

(2) The owner/operator of any boat docking facility that is located in whole or in part on tidal waters of the State, and that provides dockage for a live-aboard vessel or vessels with a Type III marine sanitation device or devices, shall install and maintain at all times, in a fully operable condition, an approved dedicated pumpout facility at each live-aboard vessel slip for the purpose of removing sewage from the live-abroad vessel on a continuous or automatic, intermittent basis to a Department approved sewage disposal system.

(3) Any discharge, by any means, of untreated or inadequately treated vessel sewage into or upon the waters of any marina, boat docking facility or tidal water of the State is prohibited.

(4) All vessels while on waters of the State shall comply with 33 U.S.C. § 1322, as amended February 4, 1987.

(5) The Secretary shall have authority to adopt reasonable rules and regulations to implement this section.

66 Del. Laws, c. 275, § 2; 68 Del. Laws, c. 137, § 3; 68 Del. Laws, c. 403, §§ 3-6.;

§ 6036 Projects of state significance.

The Department shall adopt objective standards and criteria to identify "projects of state significance" which standards and criteria shall be used by the Department in evaluating projects in the State requiring the review or approval of the Department. The process to be followed by the Department in the adoption of said objective standards and criteria shall include the following:

(1) In making the determination of whether any proposed project is a project of state significance, the Department shall consider, without limitation, the following factors:

a. Environmental impact, including, without limitation, probable air, land and water pollution likely to be generated by the proposed use under normal operating conditions and as the result of mechanical malfunction and human error; likely destruction of wetlands and flora and fauna; impact and effect of site preparation and facility operations on land erosion, drainage of the area in question, especially as it relates to flood control, and the quality and quantity of surface and ground water resources, such as the use of water for processing, cooling, effluent removal and other purposes; and the likelihood of generation of glare, heat, noise, vibration, radiation, electromagnetic interference and obnoxious odors.

b. Economic effect, including, without limitation, the number of jobs created and the income which will be generated by the wages and salaries of these jobs in relation to the amount of land required, and the amount of tax revenues potentially accruing to state and local government.

c. Effect on neighboring land uses including, without limitation, effect on public access to all state surface waters, effect on recreational areas and effect on adjacent residential and agricultural areas.

(2) The Secretary shall further elaborate on the definition of "heavy industry" in accordance with § 7005(c) of this title. The Secretary shall delineate "heavy industry of state significance" as part of this process, which shall be a subcategory of projects of state significance. Heavy industry uses of any kind, including heavy industry of state significance, not in operation on June 28, 1971, shall be prohibited in the coastal zone and no permits may be issued therefor.

(3) All agencies of state government shall assist the Department in developing objective standards and criteria to identify projects of state significance and shall provide such information as the Department requests. The Department shall develop regulations specifying the objective standards and criteria which are to be used to identify projects of state significance and shall make such regulations available for public review no later than 9 months after the effective date of this legislation. The Department shall hold a public hearing on said regulations and shall announce such hearing by publication in a newspaper of general circulation in each county of the State. The Department shall adopt regulations specifying the objective standards and criteria for identifying projects of state significance, with exception of heavy industry of state significance, no later than 13 months after the effective date of this legislation. The Department shall submit to the State Coastal Zone Industrial Control Board standards and criteria for identifying heavy industry of state significance for adoption no later than 11 months after the effective date of this legislation. The State Coastal Zone Industrial Control Board shall adopt said standards and criteria no later than 13 months after the effective date of this legislation.

67 Del. Laws, c. 253, § 2.;

§ 6037 Obligation of persons who contaminate drinking water supplies.

(a)(1) The Secretary shall develop and publish the necessary forms to be used by any person who believes his or her drinking water supply has been contaminated to petition for an alternative water supply, said petition will include, at a minimum, the following:

a. Well information including a valid DNREC well permit number, or other certified documentation as to how and when the well or other water intake was constructed; and

b. The contaminant and its concentration in the form of a signed analytical report from a certified drinking water laboratory which identifies the sample, the contaminant, its concentration and the analytical method detection limit; and

c. The date the sample was collected, the name of the person collecting the sample, a description of the sample container, and the preservation techniques used, if any.

(2) The form shall be notarized and certified as being true and factual by the petitioner. Failure to provide all relevant information, or providing false information, will be grounds to reject a petition.

(b) Upon the Secretary's receipt of a certified petition that sets forth allegations that a discharge of a substance into a drinking water supply has affected a petitioner's use of an existing drinking supply well or other drinking water intake through any activity, the Secretary shall notify all potentially responsible parties who shall be given 30 days in which to either respond to the petition, propose remedial action or request a hearing on the merits of the petition.

(c) After evaluating all available information in his or her possession, the Secretary will issue an order either verifying or rejecting the contentions contained in the petition. The Secretary's decision to verify the petition and grant relief must be based on findings of fact contained in the certified petition and other scientifically conclusive evidence in his or her possession, which at a minimum establishes that:

(1) A state or federal drinking water standard has been exceeded; and

(2) A source, due to its nature, proximity, and hydrogeologic connection to the affected water supply is the likely cause of the contamination provided that the activity does not contain a valid state or federal permit with which the permittee has fully complied and provided that the permit did not anticipate the contamination of the drinking water supply.

(d) Upon verification of a petition as set forth in subsection (c) of this section, the Secretary shall require that if any activity results in the contamination of an existing drinking water supply by contaminants other than bacteria, viruses, nitrate or pesticides, which have been applied according to the manufacturer's instructions, then the person(s) who is responsible for the contamination shall complete 1 of the following activities which is deemed to be the most cost effective:

(1) Provide at no cost to each person who has had his or her existing drinking water supply contaminated, the installation of an alternative water supply of at least equal quantity and quality to said person's water supply that existed on the date the water supply was contaminated; or

(2) Provide at no cost to each person who has had his or her existing drinking water supply contaminated, a complete water supply connection to a water supply distribution system, and provide water to said person for a term of up to 3 years in an amount not to exceed 100,000 gallons per year. Said 3-year term shall commence on the first day water is supplied to said person by the person who contaminated the drinking water supply. Water used by said person that exceeds 100,000 gallons per year shall be paid by said person at a rate that is established by the appropriate rate setting body taking into consideration the rate charged for the supply of public water in the water supply area before it was contaminated, or the rate charged in a similar area; or

(3) Provide at no cost the treatment system necessary to maintain the water supply as an adequate drinking water supply and provide the costs of operation and maintenance of the system for a period of 3 years.

(e) In addition to the provisions of subsection (d) of this section, the Secretary may require that the person who has caused the contamination of a person's drinking water supply by contaminates other than bacteria, viruses, nitrate or pesticides, shall provide at no cost to each person who has had his or her drinking water supply contaminated an interim water supply that is of a quality and quantity to meet said person's needs as shall be determined by the Secretary on a case-by-case basis. In addition, the Secretary shall determine the dates on which the interim water supply shall commence and be terminated.

(f) Any affected party may appeal a decision by the Secretary concerning a replacement water supply petition to the Environmental Appeals Board in accordance with § 6008 of this title.

(g) Any hearing that may be conducted pursuant to the provisions of this section shall be done according to procedures as set forth in § 6006 of this title.

(h) For the purposes of this section, "contamination" means the human alteration of the chemical, physical, biological or radiological integrity of water which violates federal or state drinking water standards.

67 Del. Laws, c. 406, § 1; 70 Del. Laws, c. 186, § 1.;

§ 6037B Recreational water.

(a) The Secretary shall provide for the sanitary control of natural swimming and bathing places.

(b) The Secretary shall consult with the Director of the Division of Public Health prior to making any recommendations on swimming or bathing conditions that pose a significant risk to the public health.

69 Del. Laws, c. 302, § 8.;

§ 6038 Borrow pits.

(a) The Secretary shall develop, implement and enforce, and may amend, modify and repeal, after notice and public hearing, a program to protect the waters of the State from adverse environmental impacts relating to the operation of borrow pits. In addition to any other authority which the Secretary may exercise for the purpose under this chapter or other chapters of the Delaware Code, the Secretary may:

(1) Require borrow pit owners/operators to obtain operating permits from the Department of Natural Resources and Environmental Control;

(2) Require reclamation of abandoned pits by owners/operators;

(3) Require borrow pit owners/operators to secure the borrow pit premises from illegal dumping, disposal of wastes or vandalism; and

(4) Adopt, amend, modify or repeal rules or regulations to effectuate this section.

(b) Fees may be collected or charged for permits to be issued under this section in an amount determined by the issuing authority, which fee shall not exceed the sum of $80 per disturbed acre, per year, per project.

(c) The Secretary may delegate all or part of the program to any county having rules or regulations governing borrow pits which, upon a finding by the Secretary, are at least equivalent to state requirements.

67 Del. Laws, c. 353, § 1.;

§ 6039 Debris disposal area remediation.

(a) The Secretary may develop, implement and administer a program for the identification, investigation, assessment, mitigation and remediation of debris disposal areas created as part of the construction of residential or subdivision developments. Any person who caused or contributed to the creation or use of a debris disposal area on or after December 8, 1988, shall be subject to enforcement for illegal disposal and may be required by order from the Department to remove and properly dispose of such material. The Department is authorized to develop policies, procedures and guidelines and may establish, amend, modify and repeal, after notice and public hearing, such regulations as may be necessary to effectuate the purposes of this section. The Department may establish an application fee not to exceed $250 for homeowners to participate in the remediation program. The money generated by this application fee shall be placed in the "Debris Disposal Area Remediation Account." This account shall only be used to offset costs of this program. Homeowners who wish to excavate and remove buried debris from their own residential property or homeowners who have already excavated and removed buried debris from their own residential property are eligible for reimbursement of the cost of remediation up to a maximum reimbursement of $10,000, provided that:

(1) The cost was incurred on or after December 8, 1988;

(2) The disposal areas were created as part of the construction of residential or subdivision developments in accordance with this section; and

(3) Satisfactory documentation of the work and expenses incurred are provided.

(b) The Department shall report the findings from the study and the evaluation and make recommendations to the Governor and the General Assembly no later than March 15, 1999.

(c) There shall be established within the Department an account to be known as the "Debris Disposal Area Remediation Account." All funds made available to the Department in accordance with the provisions of subsection (b) of this section shall be placed in the Debris Disposal Area Remediation Account to be used by the Department or its agents to carry out the purposes of this section. The Department may establish presumptive remedies to address the remediation of debris disposal areas. These funds shall be used for the purpose of identifying, investigating, assessing, mitigating or remediating debris disposal areas and associated effects as determined by the Department. Notwithstanding any other provision to the contrary, up to $7,500 per site may also be used to cover any secondary damage that may occur to existing structures or property as the result of the remediation, which, if applicable, shall be in addition to the maximum reimbursement amount established in subsection (a) of this section.

(d) The Department may use funds from the Debris Disposal Area Remediation Account to identify, investigate, assess, mitigate or remediate any debris disposal area constructed, used or filled subsequent to December 8, 1988, if the party responsible for the area does not respond as required to any order issued by the Secretary, and if such site presents an imminent threat to human health, safety or the environment as determined by the Department. In addition to the assessment of any penalty as provided in § 6005(a) and (b) of this title, any person who fails to comply with any order issued by the Secretary to identify, investigate, assess, mitigate or remediate any debris disposal area may be liable for all costs incurred by the Department to do so as provided in § 6005 (c) of this title.

(e) Except to the extent provided herein, no provision contained in this section shall relieve any party from compliance with or liability under any other environmental statute, including, but not limited to, Chapters 60, 62, 63, 66, 74 and 77 of Title 7.

71 Del. Laws, c. 418, § 2; 72 Del. Laws, c. 318, §§ 1, 2; 73 Del. Laws, c. 212, § 1.;

§ 6040 Requirement for scrap tire piles; enforcement.

(a) The following definitions shall apply to this section:

(1) "Operator" means any person or entity who has or had a contractual or other responsibility for security, maintenance, sales or operations of a scrap tire pile or of any real property on which a scrap tire pile is located, at any time after July 20, 1999; provided that this definition does not include a person or entity whose only ownership interest is as a mortgagee.

(2) "Owner" means any person or entity who has or had legal or equitable ownership interest in a scrap tire pile, or in any real property on which a scrap tire pile is located, at any time after July 20, 1999.

(3) "Scrap tire" means:

a. A tire that is no longer prudent or practical for vehicular use; or

b. A tire that has not been used on a vehicle for more than 6 months after the last date it was used on a vehicle.

(4) "Scrap tire pile" means an accumulation of 100 or more scrap tires, whether or not they are lying 1 upon another, that:

a. Has been accumulated or located in the same general vicinity, or accumulated or located on a parcel of real property; and

b. Is not enclosed by a building.

(5) "Tire" means a covering fitting around the rim of a vehicular wheel to absorb shocks, usually of reinforced rubber or a rubberized compound, and pressurized with air or by a pneumatic inner tube, and typically weighing approximately 25 pounds. Included in this meaning is any substantial portion of such covering, and any weight tires including truck tires.

(b) The Secretary shall, after notice and public hearing, promulgate regulations to establish standards for storage of scrap tires. Such standards shall include:

(1) A limit on the number of scrap tires that may be stored at any given location;

(2) A limit on the length of time that scrap tires may be stored at a given location;

(3) Appropriate mosquito control methods to be employed at scrap tire piles; and

(4) Proper methods for managing scrap tire piles.

72 Del. Laws, c. 205, § 1; 75 Del. Laws, c. 346, §§ 1-6.;

§ 6041 Scrap Tire Management Fund.

(a) There shall be established in the State Treasury and in the accounting system of the State a special fund to be known as the Scrap Tire Management Fund ("the Fund").

(b) The following moneys shall be deposited into the Fund:

(1) All fees collected by the State pursuant to § 2910 of Title 30;

(2) The State Treasurer shall credit to the Scrap Tire Management Fund such amount of interest as determined by this paragraph upon such Fund. On the last day of each month, the State Treasurer shall credit the Fund with interest on the average balance in the Fund for the preceding month. The interest to be paid to the Fund shall be that proportionate share, during such preceding month, of interest to the State as the Fund's and the State's average balance is to the total State's average balance; and

(3) Any other money appropriated or transferred to the account by the General Assembly.

(c) Money in the Fund may be used by the Secretary only to carry out the purposes of this section, including but not limited to the following activities.

(1) Conducting a comprehensive inventory of scrap tire piles in the State.

(2) Developing and implementing a scrap tire pile registration program.

(3) Implementing a program to clean up the scrap tire piles in existence in Delaware on June 30, 2006.

(4) Providing for state matching funds for the cleanup of scrap tire piles that have been registered in accordance with the scrap tire pile registration program referenced in paragraph (c)(2) of this section. For each registered scrap tire pile, the Fund shall cover 90% of the cost of cleaning up the pile. The owner and operator shall pay 10% of the cost of cleaning up the pile, unless they satisfactorily demonstrate the inability to pay that cost.

(5) Paying the total cost of cleaning up scrap tire piles located on abandoned properties and on estate properties where the inheritors do not register the scrap tire piles in accordance with the scrap tire pile registration program referenced in paragraph (c)(2) of this section. For such abandoned and estate properties, the Department shall place liens on the properties in order to recoup the entire cleanup cost upon sale of the properties.

(6) Payment to the Division of Revenue for the costs of administering § 2910 of Title 30.

(d) No greater than 15% of the moneys deposited into the Fund shall be used for administering this section without approval of the Joint Finance Committee.

(e) Prior to January 1, 2009, the Department shall prepare and submit to the Governor and the General Assembly a joint report on the progress made toward cleaning up the scrap tire piles in the State. Such report shall include recommendations for extension, modification, or termination of the Scrap Tire Management Fund and § 2910 of Title 30.

74 Del. Laws, c. 203, § 2; 75 Del. Laws, c. 88, § 21(4); 75 Del. Laws, c. 346, § 7.;

§ 6042 Civil and administrative penalties; Community Environmental Project Fund.

(a) There is hereby established a Community Environmental Project Fund, referred to herein as the "Fund." The Fund shall be held as a separate account within the Department and may be invested by the State Treasurer in securities consistent with investment policies established by the Cash Management Policy Board.

(b) The Fund shall consist of 25 percent of all civil or administrative penalties collected by the Department pursuant to § 4015, § 6005, § 6617, § 7011, § 7214, § 7906, § 9109, or § 9111 of this title. Twenty-five percent of such civil and administrative penalties are hereby appropriated to the Fund, subject to the requirements of this section.

(c) Moneys shall be expended from the Fund only for Community Environmental Projects, referred to herein as "Projects." As used herein the term "Community Environmental Project" means a project that is undertaken for the purpose of effecting pollution elimination, minimization, or abatement, or improving conditions within the environment so as to eliminate or minimize risks to human health, or enhancement of natural resources for the purposes of improving indigenous habitats or the recreational opportunities of

the citizens of the Delaware. The Secretary may, by regulation, provide for further definition of such Projects.

(d) The Secretary, after consultation with the Community Involvement Advisory Council, shall give priority to Community Environmental Projects which benefit communities that are most impacted by specific infraction(s) or violation(s). Specifically, the Secretary, at his or her discretion, shall determine whether a proposed Project is located within the watershed or airshed adversely affected by a violation or infraction as part of the evaluation process. The Secretary shall ensure that records identify the location of each civil or administrative penalty. No provision of this section shall be construed to require the Department to expend funds from the Fund in the absence of a suitable Project within the community where the violation or infraction occurred. The Secretary may also determine that the requirements of this subsection cannot practicably be met with respect to expenditures from the Fund associated with a penalty from a facility or location because such amount is insufficient or too large to be an appropriate expenditure. The expenditure of funds required under this subsection may be waived by the Secretary, with the concurrence of the Director of the Office of Management and Budget and Controller General.

(e) In the event that the requirements of this section conflict with applicable federal or State of Delaware requirements pertaining to the establishment and collection of penalties or other assessments by the Department, such requirements shall take precedence over the conflicting requirements of this section.

(f) The Department shall submit quarterly reports on the progress of the expenditures and/or projects conducted with the Community Environmental Project Fund to the Governor and members of the General Assembly. All of the expenditures made by or on behalf of the Fund, together with an explanation the process utilized for selecting and prioritizing Projects, shall be reported annually to the Joint Finance Committee in the Department's budget presentation.

74 Del. Laws, c. 203, § 2; 70 Del. Laws, c. 186, § 1; 75 Del. Laws, c. 88, § 21(4); 75 Del. Laws, c. 346, § 7; 78 Del. Laws, c. 193, § 1.;

06/11/2006

1.0 General Provisions

1.1 This regulation establishes the procedures that satisfy the requirement of 7 **Del.C.** Ch. 60 to report and obtain approval of equipment which has the potential to discharge air contaminants into the atmosphere, and, for construction or modification activities not subject to 7 **DE Admin. Code** 1125, the procedures that satisfy the requirement of 40 CFR Part 51 Subpart I (July 7, 1994 edition) and Section 110(a)(2)(C) of the federal clean air act (CAA) as amended November 15, 1990.

1.2 This regulation establishes procedures that enable a person to, as an option, secure terms and conditions in a permit that effectively limits potential to emit for the purpose of avoiding applicability of a federal standard, regulation or other federal requirement.

1.3 This regulation establishes procedures that enable a person subject to both this regulation and to 7 **DE Admin. Code** 1130 to, as an option, transfer the terms and conditions of a construction permit issued pursuant to this regulation into a 7 **DE Admin. Code** 1130 operating permit via the administrative permit amendment process specified in 7 **DE Admin. Code** 1130.

1.4 Within 60 calendar days of receipt of a written request by the Department, an owner or operator of an existing facility, equipment, or air contaminant control device which emits or causes to be emitted any air contaminant shall submit to the Department any relevant information that the Department may request. Relevant information includes information that, in the Departments opinion, is relevant to any permit application/registration or that is necessary to determine the applicability of or compliance with any State or Federal requirement, any permit term or condition, or any condition of registration. Such information also includes a permit application or a registration form, or a corrected or supplemented application/registration. This provision does not limit the applicability of, nor does it sanction noncompliance with the requirements of 2.1 of this regulation.

1.5 Any approval granted by the Department pursuant to this regulation, and any exemption from the requirements of this regulation provided for in 2.2 of this regulation shall not relieve an owner or operator of the responsibility of complying with applicable local, State, and Federal laws and regulations.

06/11/2006

2.0 Applicability

2.1 Except as exempted in 2.2 of this regulation, no person shall initiate construction, install, alter or initiate operation of any equipment or facility or air contaminant control device which will emit or prevent the emission of an air contaminant prior to receiving approval of his application from the Department or, if eligible, prior to submitting to the Department a completed registration form.

2.1.1 For equipment that meets all applicable emission rate (or rates) or standard (or standards) specified in 11.8.1 and 11.8.2 of this regulation without an air contaminant control device, and that meets the following conditions, the person shall submit to the Department a registration form pursuant to 9.0 of this regulation.

2.1.1.1 For equipment without an air contaminant control device, the equipment has actual emissions to the atmosphere of any air contaminant or contaminants, in the aggregate, during any day that are equal to or greater than 0.2 pound per day and, during each and every day, that are less than 10 pounds per day; and

2.1.1.2 For equipment with an air contaminant control device, the equipment has actual emissions to the inlet of the air contaminant control device of any air contaminant or contaminants, in the aggregate, during any day that are equal to or greater than 0.2 pound per day and, during each and every day, that are less than 10 pounds per day; and

2.1.1.3 7 **DE Admin. Code** 1125 does not apply.

A - 3

2.1.2 For equipment, a facility or an air contaminant control device that is not subject to 2.1.1 of this regulation and that is subject to a source category permit, the person shall submit to the Department an application for a source category permit pursuant to 10.0 of this regulation. A list of established source category permits is available from the Department.

2.1.3 For equipment, a facility or an air contaminant control device that is not subject to 2.1.1 or 2.1.2 of this regulation, the person shall submit to the Department an application for a permit pursuant to 11.0 of this regulation.

2.1.4 Any person who operates equipment, a facility or an air contaminant control device in accordance with a valid permit issued pursuant to 2.1.3 of this regulation, and who later becomes subject to a source category permit:

2.1.4.1 May, at any time, submit to the Department an application for a source category permit pursuant to 10.0 of this regulation; and

2.1.4.2 Shall, within 60 calendar days of receipt of written request from the Department, submit to the Department an application for a source category permit pursuant to 10.0 of this regulation.

2.2 Provided that 7 **DE Admin. Code** 1125 does not apply, a permit for installation, alteration, or operation pursuant to this regulation shall not be required for the following equipment or air contaminant control device. Note however that other State and Federal requirements may apply.

2.2.1 Equipment without an air contaminant control device that has actual emissions to the atmosphere of any air contaminant or contaminants, in the aggregate, during each and every day that are less than 0.2 pound per day, provided that:

2.2.1.1 The actual emissions are quantified and documented; and

2.2.1.2 Records are maintained at the facility and are made available to the Department upon request which document that the equipment qualifies for this exemption.

2.2.2 Equipment with an air contaminant control device that has actual emissions to the inlet of the air contaminant control device of any air contaminant or contaminants, in the aggregate, during each and every day that are less than 0.2 pound per day, provided that:

2.2.2.1 The actual emissions are quantified and documented; and

2.2.2.2 Records are maintained at the facility and are made available to the Department upon request which document that the equipment qualifies for this exemption.

2.2.3 The equipment listed in **Appendix A** of this regulation.

2.2.4 For operation, any equipment or air contaminant control device that is specifically identified in an operation permit issued pursuant to 7 **DE Admin. Code** 1130.

2.2.5 Equipment that is registered pursuant to 9.0 of this regulation.

2.3 Any person who operates fuel burning equipment which uses only natural gas, LP gas, or other desulfurized fuel gas and has a rated heat input of less than 100 million BTUs per hour, or any other equipment, that was exempted from the requirement to have a permit by 3.1 of this regulation (as in effect immediately preceding the then effective date of this regulation of June 1, 1997), or who operates a piece of equipment, a facility, or an air contaminant control device in accordance with a valid permit or letter of exemption that was issued by the Department prior to June 1, 1997, and who, with regard to that specific equipment, facility, or air contaminant control device, is now subject to 2.1 of this regulation:

2.3.1 May, at any time, submit to the Department a registration form or a permit application pursuant to 2.1 of this regulation; and

2.3.2 Shall, within 60 calendar days of receipt of a written request from the Department, submit to the Department a registration form or a permit application pursuant to 2.1 of this regulation; and

2.3.3 Shall not initiate construction, installation, or alteration of the equipment, facility or air contaminant control device prior to complying with 2.1 of this regulation (i.e., prior to receiving approval of his application from the Department or, if eligible, prior to submitting to the Department a completed registration form).

2.4 Any person may petition the Department to establish a source category permit. The petition and, if approved, the establishment of the source category permit shall be pursuant to the procedures in 7 **DE Admin. Code** 1130.

06/01/1997

3.0 Application/Registration Prepared by Interested Party

3.1 Any application/registration form submitted to the Department, or any request for the removal of any permit or registration, shall be made by the owner or lessee of the equipment, facility, or air contaminant control device or by his agent. If the applicant/registrant is a partnership or group other than a corporation, the application/registration shall be made by one individual who is a member of the group. If the applicant/registrant is a corporation, the application/registration shall be made by an appropriate representative of the corporation. The application/registration form shall be filed with the Air Quality Management Section of the Division of Air and Waste Management.

3.2 Each application form shall be signed by the applicant and certified by a professional engineer as to the accuracy of the technical information concerning the equipment, apparatus or design features contained in the application, plus plans and other papers submitted. Any applicant who fails to submit any relevant facts or who submitted incorrect information to the Department shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or correct information. The signature of the applicant shall constitute an agreement that the applicant will assume responsibility for the installation, alteration or use of the equipment or apparatus concerned in accordance with the requirements of this regulation.

3.3 Each registration form shall be signed and certified by the registrant as to the accuracy of the technical information concerning the equipment, apparatus or design features contained in the registration. Any registrant who fails to submit any relevant facts or who submitted incorrect information to the Department shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or correct information. The signature of the registrant shall constitute an agreement that the registrant will assume responsibility for the installation, alteration or use of the equipment or apparatus concerned in accordance with the requirements of this regulation.

06/01/1997

4.0 Cancellation of Construction Permits

The Department may cancel a construction permit if the installation or alteration is not begun or if the work involved in installation or alteration is not completed within the time limits specified in the permit.

06/01/1997

5.0 Action on Applications

5.1 If an application is disapproved, the Department shall set forth its objections in the notice of disapproval.

5.2 Upon granting written approval for operation, the Department shall give notice of such approval to any person who has submitted a written request for such notice.

06/11/2006

6.0 Denial, Suspension or Revocation of Operating Permits

6.1 In the event the Department denies a request for approval of a permit to operate any equipment, facility, or device for which an application was made, the applicant shall not commence operation until such time that approval has been obtained from the Department or a permit to operate has been issued by the Department.

6.2 The Department may suspend or revoke an operating permit for violation of any permit condition or violation of this or any other applicable rule or regulation of the Department or any law administered by the Department and may take such other actions as it deems necessary. Permit term or terms and condition or conditions which were not identified under 11.2.9 of this regulation and which were not subject to public participation under 12.3 of this regulation, or which do not otherwise conform to the requirements of this regulation, shall not limit potential to emit for the purpose of avoiding applicability of federal standards, regulations or other federal requirements.

6.3 Suspension or revocation of an operating permit shall become final immediately upon service of notice on the holder of the permit, unless otherwise stated in the notice of suspension or revocation.

06/01/1997

7.0 Transfer of Permit/Registration Prohibited

7.1 No person shall transfer a permit from one location to another, or from one piece of equipment to another. No person shall transfer a permit from one person to another person unless 30 days written notice is given to the Department, indicating the transfer is agreeable to both persons, and approval of such transfer is obtained in writing from the Department.

7.2 No person shall transfer a registration from one location to another, or from one piece of equipment to another. No person shall transfer a registration from one person to another person unless prior written notice is given to the Department, indicating the transfer is agreeable to both persons.

06/01/1997

8.0 Availability of Permit/Registration

Any permit and any registration form shall be available on the premises where the construction, alteration, installation, or operation activity takes place.

06/0119/97

9.0 Registration Submittal

9.1 Any person identified in 2.1.1 of this regulation shall register the piece of equipment with the Department on forms furnished by the Department.

9.2 A person shall register with the Department by submitting to the Department a completed registration form that is certified by the person identified in 3.1 of this regulation. Registration forms are available from the Department upon request. The registration shall consist of at least the following:

9.2.1 A description of the equipment covered by the registration; and

9.2.2 A description of the nature and quantification of the amount of the emission from the equipment; and

9.2.3 A demonstration that the equipment meets the emission rate (or rates) or standard (or standards) specified in 11.8.1 and 11.8.2 of this regulation without an air contaminant control device.

9.3 Immediately after submitting to the Department the information specified in 9.2 of this regulation the registrant may initiate construction, install, alter or initiate operation of the equipment.

9.3.1 The registrant shall maintain records at the facility which document that the equipment meets the requirements of 2.1.1 of this regulation, and shall make such records available to the Department upon request.

9.3.2 If at any time the registered equipment does not meet the requirements of 2.1.1 of this regulation, operation of said equipment shall be immediately discontinued until all necessary permits have been secured.

9.3.3 If at any time the Department determines that the registered equipment does not meet the requirements of 2.1.1 of this regulation, a violation of this regulation may have occurred and enforcement action may ensue.

9.4 The submittal of a registration form does not relieve the registrant from the requirement to comply with all State and Federal requirements. Such requirements include, but are not limited to, monitoring, record keeping and reporting requirements, any requirement to consider actual emissions or the potential to emit of all equipment when determining the applicability of or compliance with certain State and Federal requirements, and any requirement to revise a 7 **DE Admin. Code** 1130 permit if required to do so by that regulation.

9.5 A person may, in lieu of submitting to the Department a registration form, elect to:

9.5.1 Apply for a permit pursuant to 2.1.2 or 2.1.3 of this regulation, as applicable.

9.5.2 Submit to the Department all of the information required by 9.2.1 and 9.2.2 of this regulation. In such a case the registrant shall not commence construction/operation until written approval is obtained from the Department.

06/01/1997

10.0 Source Category Permit Application

10.1 Any person identified in 2.1.2 of this regulation shall submit to the Department an application requesting a source category permit on forms furnished by the Department.

10.2 The application requesting a source category permit shall include all of the following:

10.2.1 All of the information called for by the source category application form. Source category application forms are available from the Department upon request.

10.2.2 Certification by the person identified in 3.1 of this regulation that the source will comply with all of the terms and conditions of the source category permit.

10.2.3 For facilities subject to 7 **DE Admin. Code** 1130, the person identified in 3.1 of this regulation shall be a responsible official as defined in 7 **DE Admin. Code** 1130, and the application shall contain the following language from the responsible official: "I certify, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete."

10.3 For facilities not subject to 7 DE Admin. Code 1130, the Department shall grant approval by issuing to the applicant a source category permit.

10.4 For facilities subject to 7 **DE Admin. Code** 1130, the Department shall grant approval by incorporating the source category permit into the 7 **DE Admin. Code** 1130 permit by reference, and such incorporation shall be via the administrative permit amendment process specified in 7 **DE Admin. Code** 1130.

10.5 A source category permit may be valid for an indefinite period, except as provided for in 7 **DE Admin. Code** 1130 for sources subject to that regulation.

06/11/2006

11.0 Permit Application

11.1 Any person identified in 2.1.3 of this regulation shall submit to the Department an application for a permit on forms furnished by the Department. Permit application forms are available from the Department upon request.

11.2 The application shall consist of a description of at least the following:

11.2.1 The equipment or apparatus covered by the application; and

11.2.2 Any equipment connected or attached to, or servicing or served by the unit of equipment or apparatus covered by the application; and

11.2.3 The plot plan, including the distance and height of building within a reasonable distance from the place where the equipment is or will be installed, if necessarily required by the Department; and

11.2.4 The proposed means for the prevention or control of the emissions or contaminant;

11.2.5 The chemical composition and amount of any trade waste to be produced as a result of the construction, installation, or alteration of any equipment or apparatus covered by this application;

11.2.6 Any additional information, evidence or documentation required by the Department to show what the proposed equipment or apparatus will do.

11.2.7 Methods and expected frequency of occurrence of the start-up and shutdown of the equipment, including projected effects of emissions to the atmosphere and on ambient air quality.

11.2.8 The nature and amount of emission to be emitted by equipment, the facility, or an air contaminant control device or emitted by associated mobile sources.

11.2.9 If the applicant desires any of the term (or terms) or condition (or conditions) of the permit to be an effective limit on the potential to emit for the purpose of avoiding applicability of a federal standard, regulation, or other federal requirement, the applicant shall state that fact in the application. The

ensuing permit shall clearly indicate the specific term or terms and condition or conditions that are intended to limit potential to emit.

11.2.10 If the applicant desires any of the term (or terms) or condition (or conditions) of a construction permit to transfer to a 7 **DE Admin. Code** 1130 permit via the administrative permit amendment process specified in 7 **DE Admin. Code** 1130 the following additional requirements apply:

11.2.10.1 The person identified in 3.1 of this regulation shall be a responsible official as defined in 7 **DE Admin. Code** 1130, and the application shall contain the following language from the responsible official: "I certify, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete."

11.2.10.2 The application shall include the following additional information:

11.2.10.2.1 The citation and description of all applicable requirements that will apply to the equipment, facility, or air contaminant control device and that will become applicable to any covered source as a result of the construction, installation, alteration, or operation; and a description of, or reference to, any applicable test method for determining compliance with each applicable requirement. The terms "applicable requirement" and "covered source" retain the meanings accorded to them in 7 **DE Admin. Code** 1130.

11.2.10.2.2 Certification by the responsible official that the source will meet all applicable requirements on a timely basis, and, if a more detailed schedule is expressly required by any applicable requirement, that applicable requirement in accordance with that more detailed schedule.

11.2.10.2.3 If desired, information necessary to define alternative operating scenarios under 6.1.10 of 7 **DE Admin. Code** 1130, or to define permit terms and conditions to implement emission averaging or operational flexibility under 6.1.11 and 6.8 of 7 **DE Admin. Code** 1130.

11.2.10.2.4 If desired, a request that the Department, upon taking final action under 11.5.2 or 11.5.3 of this regulation, allow coverage under the permit shield as described in 6.6 of 7 **DE Admin. Code** 1130.

11.2.10.3 The applicant shall provide additional information necessary to address any requirements that become applicable to the equipment, facility, or air contaminant control device after the date it filed an application under this section but prior to the date advertisement is made pursuant to 12.4.2 of this regulation. This requirement is in addition to the requirement of 2.1 of this regulation in situations where construction, installation, or alteration is necessary to comply with the new applicable requirement.

11.2.10.4 The ensuing construction permit shall clearly indicate the specific term (or terms) or condition (or conditions) to transfer to the 7 **DE Admin. Code** 1130 permit, and each such term or condition shall specify the origin and the authority for that term or condition, and shall identify any difference in form as compared to the applicable requirement upon which the term or condition is based.

11.3 In situations in which construction, installation, or alteration is proposed, and operation of the equipment, facility, or air contaminant control device is to follow, such operation shall not commence until written approval is obtained by the applicant from the Department in accordance with 11.4 and 11.5 of this regulation, as applicable. The Department may condition approval to operate on a demonstration by the applicant of satisfactory performance of the equipment, facility, or air contaminant control device. In the event the applicant fails to demonstrate satisfactory performance, the Department may require the applicant to cease emissions from the source.

11.4 Persons not requesting review under 11.2.10 of this regulation shall, upon completion of the construction, installation or alteration, request that the Department grant approval to operate.

11.4.1 An application does not need to be submitted to the Department. Note however that an application may be required under 7 **DE Admin. Code** 1130 for persons subject to that regulation.

11.4.2 Upon satisfactory demonstration that the equipment, facility or air contaminant control device complies with all of the terms and conditions of the construction permit, the Department shall grant approval to operate by issuing an operation permit.

11.5 Persons requesting review under 11.2.10 of this regulation shall, upon completion of the construction, installation or alteration, request that the Department transfer the terms and conditions of the construction permit into 7 **DE Admin. Code** 1130 operating permit.

11.5.1 The request shall contain the following information, and shall contain the following language from the responsible official: "I certify, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete."

11.5.1.1 A description of the compliance status, a compliance schedule, and a certification of compliance for the equipment, facility, or air contaminant control device with respect to all applicable requirements, in accordance with 5.4.8 and 5.4.9 of 7 **DE Admin. Code** 1130; and

11.5.1.2 A statement of the methods used to determine compliance, including a description of monitoring, record keeping, and reporting requirements and test methods.

11.5.2 Upon satisfactory demonstration that the equipment, facility or air contaminant control device complies with all applicable requirements and all of the terms and conditions of the construction permit, and not prior to the expiration of the EPA review period provided for in 12.5 of this regulation, the Department shall transfer the specified terms and conditions to the 7 **DE Admin. Code** 1130 permit via the administrative permit amendment process specified in 7 **DE Admin. Code** 1130.

11.5.3 If the Department determines that the equipment, facility, or air contaminant control device does not comply with any applicable requirement the Department may take enforcement action, and shall do one of the following:

11.5.3.1 Provide an opportunity for the applicant to resolve the noncompliance; then, upon resolution, transfer the specified terms and conditions of the construction permit to the 7 **DE Admin. Code** 1130 permit via the administrative permit amendment process specified in 7 **DE Admin. Code** 1130; or

11.5.3.2 Transfer the specified terms and conditions of the construction permit, and an enforceable compliance schedule which satisfies the requirements of 5.4.8.3 of 7 **DE Admin. Code** 1130, to the 7 **DE Admin. Code** 1130 permit by reopening the permit for cause pursuant to the procedures in 7 **DE Admin. Code** 1130; or

11.5.3.3 Deny the request for approval to operate.

11.6 No permit shall be issued by the Department unless the applicant shows to the satisfaction of the Department that the equipment, facility, or air contaminant control device is designed to operate or is operating without causing a violation of the State Implementation Plan, or any rule or regulation of the Department, and without interfering with the attainment or maintenance of National and State ambient air quality standards, and without endangering the health, safety, and welfare of the people of the State of Delaware. The Department may, from time to time, issue or accept criteria for the guidance of applicants indicating the technical specifications which it deems will comply with the performance standards referenced herein.

11.7 Before a permit is issued, the Department may require the applicant to conduct such tests as are necessary in the opinion of the Department to determine the kind or amount of the contaminants emitted from the equipment or whether the equipment or fuel or the operation of the equipment will be in violation of any of the provisions of any rule or regulation of the Department. Such tests shall be made at the expense of the applicant and shall be conducted in a manner approved by the Department.

11.8 The following emission rates or standards for each air contaminant emitted from any equipment, facility or air contaminant control device shall be specified in each permit issued pursuant to this regulation:

11.8.1 The rate or standard established or relied upon in the State Implementation Plan (SIP) to include the State of Delaware 7 **DE Admin. Code** 1100 "Regulations Governing the Control of Air Pollution" and regulations promulgated pursuant to Section 111 and Section 112 of the Clean Air Act (CAA); and

11.8.2 The rate that was shown under 11.6 of this regulation as not interfering with the attainment and maintenance of any National and State ambient air quality standard, and not endangering the health, safety, and welfare of the people of the State of Delaware; or

11.8.3 The rate requested by the applicant. In no case shall this rate be greater than the potential to emit of the equipment, facility, or air contaminant control device; and in no case shall this rate be less stringent than the rate specified in 11.8.1 and 11.2 of this regulation.

11.9 Each emission rate and standard shall be enforceable as a practical matter. Enforceable as a practical matter means that each emission rate and standard:

11.9.1 Is stated in the permit as a technically specific and accurate limitation.

11.9.2 Is specifically associated with a particular piece or pieces of equipment or air contaminant control device or devices.

11.9.3 Has associated conditions which, in total, establish a method to determine compliance. Such associated conditions shall include appropriate testing, monitoring, record keeping, and reporting requirements.

11.9.4 Has a recurring, predictable time period under which compliance with the limitation will be demonstrated. Such time period shall be that specified in the underlying State regulation or federal rule or, in the absence of such specification and upon approval by the Department, shall be hourly, daily, monthly, or some other time period which provides for the demonstration of compliance with the limitation no less frequently than monthly.

11.10 A construction permit or any renewal thereof shall be valid for a period not to exceed three years from the date of issuance, unless sooner revoked by order of the Department, and may be renewed upon application to and approval by the Department.

11.11 An operating permit may be valid for an indefinite period, unless the equipment or operation for which a permit is written has controlled emissions of 100 tons or more per year of any air contaminant, in which case the permit shall be valid for not more than a five-year period and shall be evaluated prior to re-issuance to determine if permitted emission limits are appropriate.

11.12 The provisions of 2.1 and 11.3 of this regulation shall not apply to the operation of equipment or processes for the purpose of initially demonstrating satisfactory performance to the Department following construction, installation, modification or alteration of the equipment or processes. The applicant shall notify the Department sufficiently in advance of the demonstration and shall obtain the Department's prior concurrence of the operating factors, time period and other pertinent details relating to the demonstration.

11.13 Upon receipt of an application for the issuance of an operating permit the Department, in its discretion, may issue a temporary operating permit valid for a period not to exceed 90 days. A temporary operating permit issued pursuant to 11.0 of this regulation shall not be extended more than once for an additional 90-day period.

06/11/2006

12.0 Public Participation

12.1 Information obtained through the provisions of this regulation shall be made available for public inspection at any Department office except where such information is of confidential nature as defined in 7 **Del.C.** §6014. The Department shall provide for public participation and comment in accordance with 12.2 through 12.6 of this regulation, as applicable.

12.2 Upon receipt of a source category permit application or a permit application, in proper form, the Department shall provide for public participation and comment by:

12.2.1 Making available in at least one location in the State of Delaware a public file containing a copy of all materials that the applicant has submitted (other than those granted confidential treatment).

12.2.2 Advertising in a newspaper of general circulation in the county in which the activity is proposed and in a daily newspaper of general circulation throughout the State:

12.2.2.1 the fact that the application has been received, the identity of the affected facility, and the city or town in which the facility is located,

12.2.2.2 a brief description of the nature of the application, to include the activity or activities involved in the permit action and the emissions or the change in emission involved, and

12.2.2.3 the name, address and telephone number of a Department representative with responsibility for the permitting action, the place at which a copy of the public file may be inspected, and a statement of procedures to request a hearing.

12.2.3 Sending notice of the information detailed in 12.2.2 of this regulation by mail to any person who has requested such notification from the Department by providing to the Department their name and mailing address.

12.2.4 Holding, if the Department receives a meritorious request for a hearing within 15 calendar days of the date of the advertisement described in 12.2.2 of this regulation, or if the Department deems it to be in the best interest of the State to do so, a public hearing on an application for interested persons to appear and submit written or oral comments on the air quality impact of the proposed action.

12.2.4.1 A public hearing request shall be deemed meritorious if it exhibits a familiarity with the application and a reasoned statement of the permit's probable impact.

12.2.4.2 Not less than 20 calendar days before the time of said hearing, notification that a public hearing will be held and the time and place of that hearing shall be:

12.2.4.2.1 Served upon the applicant as summonses are served or by registered or certified mail; and

12.2.4.2.2 Published in a newspaper of general circulation in the county in which the activity is proposed and in a daily newspaper of general circulation throughout the State.

12.2.5 Considering all comments submitted by the applicant and the public in reaching its final determination.

12.3 For each permit application requesting to make the terms and conditions in a permit to effectively limit potential to emit to avoid applicability of a federal standard, regulation, or other federal requirement, the Department shall provide for public participation and comment by:

12.3.1 Making available in at least one location in the State of Delaware a public file containing a copy of all materials that the applicant has submitted (other than those granted confidential treatment), a copy of the draft permit, and a copy or summary of other materials, if any, considered in making the preliminary determination.

12.3.2 Advertising in a newspaper of general circulation in the county in which the activity is proposed and in a daily newspaper of general circulation throughout the State: 1) the fact that the application has been received, the identity of the affected facility, and the city or town in which the facility is located, 2) a brief description of the nature of the application, to include the activity or activities involved in the permit action and the emissions or the change in emission involved, and 3) the name, address and telephone number of a Department representative with responsibility for the permitting action, the place at which a copy of the public file may be inspected, and a statement of procedures to request a hearing.

12.3.3 On or before the date of the advertisement described in 12.3.2 of this regulation:

12.3.3.1 Sending notice of the information detailed in 12.3.2 of this regulation by mail to the Administrator of the EPA, through the Region III office, and to any person who has requested such notification from the Department by providing to the Department their name and mailing address.

12.3.3.2 Providing the Administrator of the EPA, through the Region III office, a copy of the draft permit.

12.3.4 Holding, if the Department receives a meritorious request for a hearing within 30 calendar days of the date of the advertisement described in 12.3.2 of this regulation, or if the Department deems it to be in the best interest of the State to do so, a public hearing on an application or the draft permit for interested persons to appear and submit written or oral comments on the air quality impact of the proposed action or on the specific terms and conditions of the draft permit.

12.3.4.1 A public hearing request shall be deemed meritorious if it exhibits a familiarity with the application and a reasoned statement of the permit's probable impact.

12.3.4.2 Not less than 30 calendar days before the time of said hearing, notification that a public hearing will be held and the time and place of that hearing shall be:

12.3.4.2.1 Served upon the applicant as summonses are served or by registered or certified mail; and

12.3.4.2.2 Published in a newspaper of general circulation in the county in which the activity is proposed and in a daily newspaper of general circulation throughout the State.

12.3.5 Affording the applicant an opportunity to submit, within 15 days following the close of the public comment period or the public hearing, whichever is later, a response to any comments made.

12.3.6 Considering all comments submitted by the applicant, the public, and the Administrator of the EPA in reaching its final determination.

12.3.7 Providing to the Administrator of the EPA, through the Region III office, a copy of the permit.

12.4 For each permit application requesting to allow the terms and conditions of a construction permit to transfer to a 7 **DE Admin. Code** 1130 permit via the administrative permit amendment process specified in 7 **DE Admin. Code** 1130, the Department shall provide for public participation and comment by:

12.4.1 Making available in at least one location in the State of Delaware a public file containing a copy of all materials that the applicant has submitted (other than those granted confidential treatment), a copy of the draft permit, and a copy or summary of other materials, if any, considered in making the preliminary determination.

12.4.2 Advertising in a newspaper of general circulation in the county in which the activity is proposed and in a daily newspaper of general circulation throughout the State: 1) the fact that the application has been received, the identity of the affected facility, and the city or town in which the facility is located, 2) a brief description of the nature of the application, to include the activity or activities involved in the permit action and the emissions or the change in emission involved, and 3) the name, address and telephone number of a Department representative with responsibility for the permitting action, the place at which a copy of the public file may be inspected, and a statement of procedures to request a hearing.

12.4.3 On or before the date of the advertisement described in 12.4.2 of this regulation:

12.4.3.1 Sending notice of the information detailed in 12.4.2 of this regulation by mail to any person who has requested such notification from the Department by providing to the Department their name and mailing address, and to the representative of any affected states designated by those states to receive such notices. The term "affected states" retains the meaning accorded to it in 7 **DE Admin. Code** 1130.

12.4.3.2 Providing the Administrator of the EPA, through the Region III office, affected states, any person who requests it, and the applicant a statement that sets forth the legal and factual basis for the draft permit conditions (including references to the applicable statutory or regulatory provisions).

12.4.3.3 Providing the Administrator of the EPA, through the Region III office, a copy of the permit application unless the Administrator waives the requirement.

12.4.4 Holding, if the Department receives a meritorious request for a hearing within 30 calendar days of the date of the advertisement described in 12.4.2 of this regulation, or if the Department deems it to be in the best interest of the State to do so, a public hearing on an application or the draft permit for interested persons to appear and submit written or oral comments on the air quality impact of the proposed action or on the specific terms and conditions of the draft permit.

12.4.4.1 A public hearing request shall be deemed meritorious if it exhibits a familiarity with the application and a reasoned statement of the permit's probable impact.

12.4.4.2 Not less than 30 calendar days before the time of said hearing, notification that a public hearing will be held and the time and place of that hearing shall be:

12.4.4.2.1 Served upon the applicant as summonses are served or by registered or certified mail; and

12.4.4.2.2 Published in a newspaper of general circulation in the county in which the activity is proposed and in a daily newspaper of general circulation throughout the State.

12.4.5 Affording the applicant an opportunity to submit, within 15 days following the close of the public comment period or the public hearing, whichever is later, a response to any comments made.

12.4.6 Considering all comments submitted by the applicant, the public, and any affected state in reaching its final determination. The Department shall maintain a list of all commenters and a summary of the issues raised and shall make that information available in the public file and supply it to EPA upon request.

12.4.7 After meeting the requirements of 12.4.1 through 12.4.6 of this regulation, providing the Administrator of the EPA, through the Region III office, a copy of the proposed permit [i.e., the version of the permit that represents the Departments final determination under 12.4.6 of this regulation], all necessary supporting information, and providing a notice to the Administrator and to any affected state of any refusal by the Department to accept all recommendations for the proposed permit that the affected state submitted during the public review period. The notice shall include the Department's reasons for not accepting any such recommendation. The Department is not required to accept recommendations that are not based on applicable requirements. The term "applicable requirement" retains the meaning accorded to it in 7 **DE Admin. Code** 1130.

12.4.8 On or before the date that the Department provides the proposed permit to EPA for review under 12.4.7 of this regulation), issuing a written response to all comments submitted by affected states and all significant comments submitted by the applicant and the public.

12.5 The Department shall not issue the permit if the Administrator objects to its issuance in writing within 45 days of receipt of all of the information provided to the Administrator pursuant to 12.4.7 of this regulation. Any EPA objection under this paragraph shall include a statement of the Administrator's reasons for objection and a description of the terms and conditions that must be revised to respond to the objection. The Administrator will provide the applicant a copy of the objection. The Department may thereafter issue only a revised permit that satisfies EPA's objection.

12.6 If the Administrator does not object in writing under 12.5 of this regulation, any person may petition the Administrator within 60 days after the expiration of the Administrator's 45-day review period to make such objection. Any such petition shall be based only on objections to the permit raised with reasonable specificity during the public comment period provided for in 12.4 of this regulation, unless the petitioner demonstrates that it was impracticable to raise such objections within such period, or unless the grounds for such objection arose after such period. If the Administrator objects to the permit as a result of a petition filed under this paragraph, the Department shall not amend the 7 **DE Admin. Code** 1130 permit until EPA's objection has been resolved, except that a petition for review does not stay the effectiveness of the construction permit or the amended 7 **DE Admin. Code** 1130 permit or its requirements if the construction permit or the amended 7 **DE Admin. Code** 1130 permit was issued after the end of the 45-day review period and prior to an EPA objection. If the Department has issued an amended the 7 **DE Admin. Code** 1130 permit prior to receipt of an EPA objection under this paragraph, the Administrator will modify, terminate, or revoke such permit, and shall do so consistent with the time limits established in 40 CFR 70.7(g)(4) or (5)(i) and (ii), except in emergencies, and the Department may thereafter issue only a revised permit that satisfies EPA's objection. In any case, the source will not be in violation of the requirement to have submitted a timely and complete application under 7 **DE Admin. Code** 1130.

06/01/1997

13.0 Department Records

13.1 The Department will keep for five years such records and submit to the Administrator of the EPA such information as the Administrator may reasonably require to ascertain whether the optional procedures to establish and transfer the terms and conditions of a construction permit issued pursuant to this regulation into a 7 **DE Admin. Code** 1130 operating permit via the administrative permit amendment process specified in 7 **DE Admin. Code** 1130 comply with the requirements of the Federal Clean Air Act and 40 CFR Part 70.

1 DE Reg. 48 (07/01/97)

9 DE Reg. 1084 (01/01/06)

9 DE Reg. 1981 (06/01/06)

12 DE Reg. 347 (09/01/08)

06/11/2006

Appendix A

(For the applicability of Appendix A, see 2.2 of this regulation)

1.0 Air contaminant detector, air contaminant recorder, combustion controller or combustion shut-off.

2.0 Except as provided for in 7 **DE Admin. Code** 1122, "Restriction on Quality of Fuel in Fuel Burning Equipment," external combustion fuel burning equipment which:

2.1 Uses any fuel and has a rated heat input of less than 10 million British-Thermal Units (BTUs) per hour.

2.2 Uses only natural gas, LP gas, or other desulfurized fuel gas and has a rated heat input of less than 15 million British-Thermal Units (BTUs) per hour.

3.0 Air conditioning or comfort ventilating systems.

4.0 Vacuum cleaning systems used exclusively for office applications or residential housekeeping.

5.0 Ventilating or exhaust systems for print storage room cabinets.

6.0 Exhaust systems for controlling steam and heat.

7.0 Any equipment at a facility used exclusively for chemical or physical analysis or determination of product quality and commercial acceptance, provided the operation of the equipment is not an integral part of the production process and the total actual emissions from all such equipment at the facility do not exceed 450 pounds in any calendar month.

8.0 Internal combustion engines in vehicles used for transport of passengers or freight.

9.0 Maintenance, repair, or replacement in kind of equipment for which a permit to operate has been issued.

10.0 Equipment which emits only nitrogen, oxygen, carbon dioxide, or water vapor.

11.0 Ventilating or exhaust systems used in eating establishments where food is prepared for the purpose of consumption.

12.0 Equipment used to liquefy or separate oxygen, nitrogen or the rare gases from the air.

13.0 Fireworks display.

14.0 Smudge pots for orchards or small outdoor heating devices to prevent freezing of plants.

15.0 Outdoor painting and sand blasting equipment.

16.0 Lawnmowers, tractors, farm equipment and construction equipment.

17.0 Gasoline dispensing facilities that never exceed a monthly throughput of 10,000 gallons.

18.0 Stationary gasoline storage tanks that:

18.1 Have a capacity less than 550 gallons and that are used exclusively for the fueling of implements of husbandry; or

18.2 Have a capacity less than 2000 gallons and that were constructed prior to January 1, 1979; or

18.3 Have a capacity less than 250 gallons and that were constructed after December 31, 1978.

19.0 Fire schools or fire fighting training.

20.0 Residential wood burning stoves and wood burning fireplaces.

21.0 Any stationary storage tank not subject to control by the provisions of this regulation, which contains any liquid having a true vapor pressure less than 0.5 psia at 70°F or is less than 5000 gallons capacity.

22.0 Buildings, cabinets, and facilities used for storage of chemicals in closed containers.

23.0 Sewage treatment facilities.

24.0 Water treatment units.

25.0 Quiescent wastewater treatment operations.

26.0 Non-contact water cooling towers (water that has not been in direct contact with process fluids).

27.0 Laundry dryers, extractors, or tumblers used for fabrics cleaned with a water solution of bleach or detergents.

28.0 Equipment used for hydraulic or hydrostatic testing.

29.0 Blueprint copiers and photographic processes.

30.0 Kilns used for firing ceramic ware that are heated exclusively by natural gas, electricity, or liquid petroleum gas, and the BTU input is less than 15 million BTUs per hour.

31.0 Inorganic acid storage tanks equipped with an emission control device.

32.0 Any internal combustion engine associated with a stationary electrical generator that: 1) has a standby power rating of 450 kilowatts or less that is used only during times of emergency; 2) is located at any residence; or 3) is located at any commercial poultry producing premise, as these terms are defined in 7 **DE Admin. Code** 1144.

33.0 Any internal combustion fuel burning equipment, which is not associated with a stationary electrical generator, and has an engine power rating of 450 hp or less.

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TITLE 7 NATURAL RESOURCES & ENVIRONMENTAL CONTROL
DELAWARE ADMINISTRATIVE CODE 1
1100 Air Quality Management Section
1117 Source Monitoring, Record Keeping And Reporting

01/11/1993

1.0 Definitions and Administrative Principles

"**Actual emission**" means the actual rate of emissions of a pollutant from an emissions unit for the calendar year or seasonal period. Actual emission estimates must include upsets and downtime to parallel the documentation of these events in the emission inventory and must follow an acceptable emission estimation method.

"**AIRS**" means Aerometric Information Retrieval System (AIRS). EPA's mainframe database of state air emissions data.

"**Annual fuel/process rate**" means the actual or estimated annual fuel, process or solid waste operating rate. The AIRS facility subsystem source classification code table prescribes the units to be used with each source classification code (SCC).

"**Base year**" means the year of enactment of the Clean Air Act Amendments, calendar year 1990. Serves as the baseline year for ozone State Implementation Plan (SIP) emission inventories and attainment strategies.

"**Capture efficiency**" means the weight per unit time of a pollutant entering a capture system and delivered to a control device, divided by the weight per unit time of the total pollutant generated by a source of the pollutant, expressed as a percentage. The capture efficiency reflects how much of the pollutant is captured and routed to the control device. It should not be confused with the control efficiency, which is a reflection of how well the control device controls emissions.

"**Certifying individual**" means the individual responsible for the completion and certification of the Emission Statement (e.g., officer of the company) and who will take legal responsibility for the Emission Statement's accuracy.

"**Control efficiency**" means the weight per unit time of a pollutant entering the control device minus the weight per unit time of a pollutant leaving the control device, divided by the weight per unit time of the pollutant entering the control device, expressed as a percentage. The control efficiency reported for Emission Statements and SIP emission inventories should be the measured efficiency, adjusted to an annual average by reflecting any reduction in efficiency due to control equipment downtime and maintenance degradation occurring after the date of measurement. If the measured control efficiency is unavailable, the design efficiency, reduced by 10%, may be used. The downtime and maintenance degradation adjustments are then made to this figure. However, it should be clearly indicated that the design efficiency, and not the measured efficiency, is being reported.

"**Control equipment identification code**" means the AIRS code that defines the equipment (such as an incinerator or carbon absorber) used to reduce, by destruction or removal, the amount of air pollutant or pollutants in an air stream prior to discharge to the ambient air. Table 7-4 of this regulation describes the acceptable equipment codes for Emission Statements and SIP emission inventories.

"**Estimated emissions method code**" means a one digit code that identifies the estimation technique used in the calculation of estimated emissions. Table 7-1 of this regulation describes the acceptable emissions method codes for Emission Statements and SIP emission inventories.

"**Estimated emissions units**" means a two digit code that identifies the units associated with an estimated emissions value. Table 7-3 of this regulation gives the acceptable estimated emissions units for Emission Statements and SIP emission inventories.

"**Measured emissions method code**" means a one digit code that identifies the test method used to ascertain measured emissions. Table 7-2 of this regulation describes the acceptable measured emissions method codes for Emission Statements and SIP emission inventories.

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"**Measured emissions units**" means a two digit code that identifies the units associated with a measured emissions value. Table 7-3 of this regulation gives the acceptable measured emissions units for Emission Statements and SIP emission inventories.

"**Peak ozone season**" means that period of the year when conditions for photochemical ozone formation are most favorable. It is characterized by sustained periods of direct sunlight (i.e., long days, small cloud cover) and warm temperatures. For Delaware, the peak ozone season is defined as the period from June 1 through August 31.

"**Percentage annual throughput**" means an estimate of the quarterly percentage of the annual throughput. For boilers, process heaters or similar combustion equipment the percent throughput for each quarter would be a percentage based on the total fuel burned for the entire reporting year. For a process or non-combustion activity the percent throughput for each quarter would be a percent based on the production, consumption or other throughput units of measure. The sum of the four percentages must equal 100%. For Emission Statements and SIP emission inventories the quarters are defined by EPA as follows:

a. January, February and December (e.g., January 1992, February 1992 and December 1992)

b. March through May

c. June through August

d. September through November

"**Periodic ozone SIP emission inventory**" means an inventory of all emissions to the atmosphere of VOC's, NOx, and CO from all categories of emission sources. A periodic ozone SIP inventory must be completed at least every three years after the base year (1990).

"**Point**" means a physical emission point or activity within a facility that results in pollutant emissions.

"**Potential to emit**" means the capability of a source to emit any air pollutant at maximum design capacity, except as constrained by federally-enforceable conditions that include the effect of installed air pollution control equipment, restrictions on the hours of operation, and the type or amount of material burned, stored, or processed. Potential to emit is used for major source determinations under New Source Review (NSR).

"**Source classification code (SCC)**" means an eight digit code used by EPA to identify a process, activity, or segments of a process or activity creating emissions at a point.

"**Segment**" means components of a process or activity at a point, used in the computation of emissions. Each segment must have an associated SCC. For example, in a combustion process that can burn alternate fuels, each specific fuel is considered a segment, and each has a unique SCC.

07/17/1984

2.0 Sampling and Monitoring

2.1 Upon written request of the Department, an owner or operator of an air contaminant source shall, at his expense, install, maintain, and use emission monitoring devices, keep records, and make periodic reports to the Department on the nature and amount of emissions from such source. The Department shall make such data available to the public as reported and as correlated with any applicable emission standards or limitations.

2.2 Upon written request of the Department, an owner or operator of an air contaminant source shall, at his expense, sample the emissions of, or fuel used by, that source, maintain records and submit reports to the Department on the results of such sampling. The Department may make such data available to the public as reported and as correlated with any applicable emission standards or limitations.

2.3 The Department may conduct tests of emissions from or fuel used by any air contaminant source. Upon written request of the department, the owner or operator of the air contaminant source shall provide necessary holes in stacks or ducts, and such other safe and proper sampling and testing facilities, exclusive of instruments and sampling devices, if any are necessary, for proper determinations of the emission of air contaminants. The department shall have access to and use of monitoring, record-keeping and reporting required by federal regulations relating to emissions of air contaminants. The

department may make such data available to the public as reported or received and as correlated with any applicable emissions standards or limitations.

2.4 Upon written request of the department, an owner or operator of an air contaminant source consisting of ships, boats or other waterborne craft engaged in a bulk transfer operation shall, at his expense, provide for the installation, operation and maintenance of such environmental monitoring equipment and appropriate laboratory or other scientific analyses which the Department deems necessary to determine the impact upon the environment of air contaminants emitted from the source.

In the event that the Department provides such monitoring and analytical services for the owner or operator, the Department may recover the cost of such environmental monitoring activities as a fee or fees for any construction or operation permit issued to the owner or operator by the Department.

When more than one bulk transfer operation is permitted to transfer the same solid material within the limits of Big Stone Anchorage, the amortized cost of environmental monitoring equipment and the annual cost of maintenance, operation and laboratory analysis accrued to the Department shall be shared equally by the owners of the bulk transfer operations. Whenever the owner or operator of the transfer facility accepts responsibility for monitoring and analysis activities as required by the department, the owner or operator shall be responsible for determining the shared costs.

The provisions of 2.4 of this regulation shall be applicable only to the transfer of bulk solid materials. Bulk solid material is defined as any solid material which is unpackaged.

2.5 All instrumentation, analytical techniques, calculations, records, and sampling locations and methods required by this regulation shall have the prior approval of the Department.

2.6 Reports required by this regulation shall be submitted in a form approved by the Department and shall be signed by a corporate officer or his designee whose signature shall constitute his own and employer's certification that the data are accurate and complete.

2.7 The reference methods used to determine compliance with the standards prescribed in 7 **DE Admin. Code** 1104; 1105; 1107; 3.0 of 7 **DE Admin. Code** 1108; 7 **DE Admin. Code** 1109 and 1114 shall be those set forth in 1.5 of 7 **DE Admin. Code** 1120 or such other method approved by the Department.

07/17/1984

3.0 Minimum Emission Monitoring Requirements for Existing Sources

3.1 Applicability - The person responsible for existing sources listed in 3.0 of this regulation shall install, calibrate, operate, and maintain all monitoring equipment necessary for the continuous monitoring of the pollutants specified in 3.0 of this regulation for the applicable source category and shall complete the installation and performance tests of the above equipment and begin monitoring and recording within 18 months of the date of plan approval or promulgation.

3.2 Fuel Burning Equipment - Fuel burning equipment except as provided in 3.2 through 3.5 of this regulation, with an annual average capacity factor of greater than 30%, as reported to the Federal Power Commission for calendar year 1974, or as otherwise demonstrated to the Department by the owner or operator, shall conform with the following monitoring requirements:

3.2.1 A continuous monitoring system for the measurement of opacity which meets the performance specifications of 4.1.1 of this regulation shall be installed, calibrated, maintained, and operated in accordance with the procedures of 4.0 of this regulation by the owner or operator of any such equipment of greater than 250 million BTU per hour heat input (1.05 million kilogram-calories per minute) except where:

3.2.1.1 Gaseous fuel is the only fuel burned, or

3.2.1.2 Oil or a mixture of gas and oil are the only fuels burned and source is able to comply with the applicable particulate matter and opacity regulations without utilization of particulate matter collection equipment.

3.2.1.3 Waste heat boilers such as carbon monoxide boilers unless they derive greater than 250 million BTU per hour heat input from the firing of auxiliary fuel.

3.2.2 A continuous monitoring system for the measurement of sulfur dioxide which meets the performance specification of 4.1.3 of this regulation shall be installed, calibrated, maintained, and operated on any fuel burning equipment of greater than 250 million BTU per hour input which has installed sulfur dioxide control equipment.

3.2.3 A continuous monitoring system for the measurement of nitrogen oxides which meets the performance specification of 4.1.2 of this regulation shall be installed, calibrated, maintained, and operated on any fuel burning equipment or combination or such equipment discharging effluents through a common stack of greater than 1000 million BTU per hour heat input, (4.2 million kilogram-calories per minute) when such equipment is located in an Air Quality Control Region which is classified as Priority I with respect to nitrogen dioxide. This requirement shall not be applicable to any source owner or operator who demonstrates during source compliance tests as required by the Department that such a source emits nitrogen oxides at levels 30% or more below the applicable New Source Performance Standard.

3.2.4 A continuous monitoring system for the measurement of the percent oxygen or carbon dioxide shall be installed, calibrated, operated, and maintained on fuel burning equipment where measurements of oxygen or carbon dioxide in the flue gas are required to convert either sulfur dioxide or nitrogen oxides continuous emission monitoring data, or both, to units of the New Source Performance Standard. Measurement of the percent oxygen or carbon dioxide shall meet the performance specifications of 4.1.4 or 4.1.5 of this regulation.

3.3 Sulfuric Acid Plants - Each sulfuric acid plant of greater than 300 tons per day production capacity shall install, calibrate, maintain and operate a continuous monitoring system for the measurement of sulfur dioxide which meets the performance specifications 4.1.3 of this regulation for each sulfuric acid producing facility within such plant.

3.4 Fluid bed catalytic cracking unit catalyst regenerators at petroleum refineries. Each catalyst regenerator for fluid bed catalytic cracking units of greater than 20,000 barrels per day fresh feed capacity shall install, calibrate maintain, and operate a continuous monitoring system for the measurement of opacity which meets the performance specifications of 4.1.1 of this regulation.

3.5 Electric arc furnaces - See 7 **DE Admin. Code** 1123.

07/17/1984

4.0 Performance Specifications

4.1 Any person who installs monitoring equipment to comply with this regulation shall demonstrate compliance with performance specifications set forth in Appendix B, 40 CFR Part 60, dated July 1, 1982, which are hereby adopted by reference:

4.1.1 For measuring opacity; Performance Specification 1;

4.1.2 For measuring NO or NO_x; Performance Specification 2;

4.1.3 For measuring SO_2; Performance Specification 2;

4.1.4 For measuring oxygen; Performance Specification 3;

4.1.5 For measuring carbon dioxide; Performance Specification 3.

4.2 Calibration gases and cycling time in continuous monitoring systems shall comply with the requirements set forth in paragraphs 3.3 and 3.4 of Appendix B in 40 CFR Part 51, dated July 1, 1982, which are hereby adopted by reference.

4.3 Zero and span drift in continuous monitoring systems shall comply with the requirements set forth in paragraphs 3.7 and 3.8 of Appendix P, 40 CFR Part 51, dated July 1, 1982, which are hereby adopted by reference.

4.4 Analytical Reference Methods 3.6 and 7 in 40 CFR Part 60, Appendix A dated July 1, 1982, are hereby adopted by reference.

4.5 Alternative procedures and requirements for continuous monitoring systems may be submitted for Department approval for the situations set forth in paragraph 3.9.1, 3.9.2, 3.9.3, 3.9.4, 3.9.5 and paragraphs 6.1 through 6.4 of Appendix P, 40 CFR Part 51, dated July 1, 1982, which are hereby adopted by reference with the word substitutions "Department" for "State" and "Regulation" for "Appendix." The Department approves the alternative data reduction procedures using wet basis pollutant

and oxygen data set forth in paragraphs a and b in the Federal Register, Volume 41, Number 198, dated Tuesday, October 12, 1976.

4.6 Exemptions

4.6.1 Any source which has purchased an emission monitoring system or systems prior to September 11, 1974, may be exempt from meeting such test procedures prescribed in this regulation for a period not to exceed five years from plan approval or promulgation.

4.6.2 Any source which is regulated under 7 **DE Admin. Code** 1120, New Source Performance Standards, shall be exempt from this regulation.

4.6.3 Any source which is regulated under 7 **DE Admin. Code** 1124, Control of Volatile Organic Compound Emissions, shall be exempt from the provisions of this regulation, except for 7.0 of this regulation.

4.7 Monitor Location - Any person who is required to install continuous monitoring systems or monitoring devices pursuant to this regulation shall install such systems or devices such that representative measurements of emissions or process parameters (i.e., oxygen, or carbon dioxide) from the affected facility are obtained.

4.8 Combined Effluents - When the effluents from two or more affected facilities of similar design and operating characteristics are combined before being released to the atmosphere, the owner or operator may install, as determined by the Department, monitoring systems on the combined effluent. When the affected facilities are not of similar design or operating characteristics, or when the effluent from one affected facility is released to the atmosphere through more than one point, the owner or operator may with prior written approval of the Department establish alternative procedures to implement the intent of these requirements.

07/17/1984

5.0 Minimum Data Requirements

5.1 Owners or operators of facilities required to install continuous monitoring systems shall submit a written report of excess emissions for each calendar quarter and the nature and cause of the excess emissions, if known. The averaging period used for data reporting shall correspond to the averaging period specified in the emission test method used to determine compliance with an emission standard for the pollutant/source category in question. The required report shall include, as a minimum, the data stipulated in this regulation.

5.2 For opacity measurements, the summary shall consist of the magnitude in actual percent of all one-minute (or such other time period deemed appropriate by the Department) averages of opacity greater than the opacity standard in the applicable plan for each hour of operation of the facility. Average values may be obtained by integration over the averaging period or arithmetically averaging a minimum of four equally spaced instantaneous opacity measurements per minute. Any time period exempted shall be considered before determining the excess averages of opacity (e.g., whenever a regulation allows two minutes of opacity measurements in excess of the standard, the Department shall require the source to report all opacity averages in any one hour, in excess of the standard, minus the two-minute exemption). If more than one opacity standard applies, excess emissions data must be submitted in relation to all such standards.

5.3 For gaseous measurements, the summary shall consist of emission averages, in the units of the applicable standard, for each averaging period during which the applicable standard was exceeded.

5.4 The date and time identifying each period during which the continuous monitoring system was inoperative, except for zero and span checks, and the nature of system repairs or adjustments shall be reported. Proof of continuous monitoring system performance whenever system repairs of adjustments have been made shall be required by the Department.

5.5 When no excess emissions have occurred and the continuous monitoring system or systems have not been inoperative, repaired, or adjusted, such information shall be included in the report.

5.6 Owners or operators of affected facilities shall maintain a file of all information reported in the quarterly summaries, and all other data collected either by the continuous monitoring system or as

necessary to convert monitoring data to the units of the applicable standard for a minimum of two years from the date of collection of such data or submission of such summaries.

07/17/1984

6.0 Data Reduction

Owners or operators of affected facilities shall use the following procedures for converting monitoring data to units of the standard where necessary.

6.1 For fuel burning equipment the procedures to be used to convert gaseous emission monitoring data to units of the standard, where necessary, shall be those set forth in paragraphs 5.1.1, 5.1.2 and 5.1.3 of Appendix P, 40 CFR Part 51 dated July 1, 1982, which are hereby adopted by reference with the word or phrase substitutions "Regulation" for "Appendix", "subsection numbers" for "subparagraph", and "3.1.4 of this regulation" for "paragraph 2.1.4 of this Appendix". Factors F and Fc shall be determined by methods approved by the Secretary.

6.2 For sulfuric acid plants the owner or operator shall:

Report the average sulfur dioxide concentration (ppm), production rate (tons H_2SO_4 produced/day), and the SO_2 emission rate (lbs. SO_2/hour) whenever the one-hour average exceeds the applicable standard of 2.1 of 7 **DE Admin. Code** 1109. For excess SO_2 emissions lasting for more than three consecutive hours, the owner or operator shall summarize the data. The data shall be reported to the Department at the end of each calendar quarter.

01/11/1993

7.0 Emission Statement

7.1 Emission Statement requirements apply to all stationary sources located in an ozone nonattainment area that emit nitrogen oxides (NO_x) or volatile organic compounds (VOCs) to the atmosphere. The Department may, with EPA approval, waive the Emission Statement requirements for classes or categories of stationary sources with facility-wide actual emissions of less than 25 tons/year of NO_x or VOCs if the class or category is included in the Base Year and Periodic Ozone SIP Emission Inventories, and the actual emissions were calculated using EPA-approved emission factors or other methods acceptable to the EPA. Emission Statement requirements also apply to all stationary sources located in ozone attainment areas that emit or have the potential to emit 50 tons/year or more of NO_x or VOCs.

7.2 An Emission Statement shall contain data elements addressing source identification information, operating data, actual emissions data, control equipment information and process rate information. Each Emission Statement shall include a certification of the data to ensure that the information contained in the statement is accurate to the best knowledge of the individual certifying the statement. The individual certifying the statement shall be an official of the facility who will take legal responsibility for the Emission Statement's accuracy.

7.2.1 The source identification information provided by the source to the Department shall as a minimum include:

7.2.1.1 Full name;

7.2.1.2 Physical location;

7.2.1.3 Mailing address of the facility.

7.2.2 The minimum operating data provided by the source to the Department shall include:

7.2.2.1 Percentage annual throughput (percentage of annual activity);

7.2.2.2 Hours per day on both the normal operating schedule and during peak ozone season of June 1 through August 31 (if different from the normal operating schedule);

7.2.2.3 Days per week on both the normal operating schedule and during peak ozone season of June 1 through August 31 (if different from the normal operating schedule)

7.2.2.4 Weeks per year on both the normal operating schedule and during peak ozone season of June 1 through August 31 (if different from the normal operating schedule);

7.2.2.5 Start time on both the normal operating schedule and during the peak ozone season from June 1 through August 31;

7.2.2.6 End time on both the normal operating schedule and during the peak ozone season from June 1 through August 31.

7.2.3 The minimum emissions information provided by the source to the Department shall include:

7.2.3.1 Actual volatile organic compound or nitrogen oxide emissions at the process level, in tons per year for an annual emission rate and pounds per day during the peak ozone season from June 1 to August 31 (estimated or measured).

7.2.3.2 Emissions method code for estimated or measured emissions. Valid emissions estimation and measurement method codes and units codes are presented in Table 7-1 and Table 7-2 of this regulation.

7.2.3.3 Units code to identify the units (tons per year or pounds per day) for the units measured or estimated, are presented in Table 7-3 of this regulation.

7.2.3.4 Calendar year for the emissions.

7.2.4 The minimum control equipment information provided by the source to the Department shall include:

7.2.4.1 Current primary and secondary control equipment identification codes. Valid control equipment identification codes are presented in Table 7-4 of this regulation;

7.2.4.2 Current control equipment efficiencies (%);

7.2.4.3 Capture efficiency (%).

7.2.5 The minimum process rate data provided by the source to the Department shall include:

7.2.5.1 Annual fuel/process rate (annual throughput if not a combustion process). For a combustion process, the annual fuel usage must be in units corresponding to the specific Source Classification Code (SCC) for each fuel (e.g., tons for coal, million cubic feet (MMCF) for natural gas). For a noncombustion process, the annual throughput must be given in units of measure corresponding to the specific SCC for the process (e.g., tons of solvent in coating used for metal furniture painting).

7.2.5.2 Peak ozone season daily process rate.

7.2.5.3 Design capacity.

7.2.5.4 Fuel use data (i.e., heat content).

7.2.5.5 Tank data (i.e., vapor pressure, vapor mole weight, diameter, height, age, loading type, color, roof and seal type).

7.2.5.6 Solvent usage data (i.e., solvent purchased and solvent recovered).

TABLE 7-1

ESTIMATED EMISSIONS METHOD CODE

1. User-calculated based on source test or other measurements.
2. User-calculated based on material balance using engineering knowledge of the process.
3. User-calculated based on AP-42.
4. User-calculated by best guess/engineering judgment.
5. User-calculated based on a state or local agency emission factor.
7. Source closed, operation ceased.
8. Computer calculated based on standard emission factor (SCC emission factor file).
9. Computer calculated based on user-supplied emission factor.

TABLE 7-2
MEASURED EMISSIONS METHOD CODE

1. U. S. EPA reference method.
3. Liquid Absorption technique.
4. Solid absorption technique.
5. Freezing-out method.
6. Gram sampling (intermittent) technique.
9. Other, specify in comment.

TABLE 7-3
ESTIMATED AND MEASURED UNITS CODE

PD - Pounds per Day.
TY - Tons per Year.

TABLE 7-4
CONTROL EQUIPMENT CODES

000 - No Equipment	054 - Process Enclosed
019 - Catalytic Afterburner	060 - Process Gas Recovery
020 - Catalytic Afterburner – Heat Exchanger	065 - Catalytic Reduction
021 - Direct Flame Afterburner	066 - Molecular Sieve
022 - Direct Flame Afterburner – Heat Exchanger	072 - Shell and Tube Condenser
023 - Flaring 078 - Baffle	073 - Refrigerated Condenser
024 - Modified Furnace/Burner	074 - Barometric Condenser
025 - Staged Combustion	078 - Baffle
026 - Flue Gas Recirculation	080 - Chemical Oxidation
027 - Reductive Combustion – Air Preheater	081 - Chemical Reduction
028 - Steam or Water Injection	082 - Ozonation
029 - Low/Excess - Air Firing	083 - Chemical Neutralization
030 - Fuel - Low Nitrogen Content	084 - Activated Clay Adsorption
031 - Air Injection	087 - Nitrogen Blanket
032 - Ammonia Injection	088 - Conservation Vent
033 - Control of % O2 in Combustion Air	089 - Bottom Filling
046 - Process Change Tank	090 - Conversion to Variable
047 - Vapor System Recovery	091 - Conversion to Floating Roof Tank
048 - Activated Carbon Adsorption	092 - Conversion to Pressurized Tank
049 - Liquid Filtration System	093 - Submerged Filling
050 - Packed-Gas Absorption	094 - Underground Tank
051 - Tray -Type Gas Absorption Column	095 - White Paint
053 - Venturi Scrubber	096 - Vapor Lock Balance Recovery System
	099 - Miscellaneous Control Devices

7.3 Annual emissions statements are due on April 30 for the preceding calendar year beginning with April 30, 1993 for calendar year 1992. The Department may require more frequent submittal, if the Department determines that either:

7.3.1 A more frequent submission is required by the Environmental Protection Agency; or

7.3.2 Analysis of the data on a more frequent basis is necessary to implement the requirements of 7 **Del.C.**, Chapter 60.

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TITLE 7 NATURAL RESOURCES & ENVIRONMENTAL CONTROL
DELAWARE ADMINISTRATIVE CODE 1
1100 Air Quality Management Section
1130 Title V State Operating Permit Program

12/11/10

1.0 Program Overview

Title V of the Clean Air Act Amendments of November 15, 1990 require that the U.S. Environmental Protection Agency (EPA) promulgate regulations calling for states to establish new operating permit programs or amend existing programs so that they satisfy the minimum requirements of EPA's regulations. EPA promulgated these regulations on July 21, 1992, 57 Fed. Reg. 32,250 et seq. The regulations are published at 40 CFR Part 70.

The Department is adopting this regulation pursuant to 7 Del.C. Ch 60. This regulation shall take effect upon approval by the EPA.

The Department is adopting the operating permit program contained in this regulation to satisfy the requirements of both 40 CFR Part 70, and Title V of the Clean Air Act. This regulation will fully comport with all federal operating permit requirements.

This regulation only addresses the requirements for operating permits under Title V of the Clean Air Act. Any applicable construction permit requirements are not included in this regulation. The operating permit regulations do not provide for the establishment of any new substantive control requirements. The emissions standards or limitations to be included in operating permits are those contained in existing regulations, future construction permits and regulations, and any others contained in applicable control requirements. Under EPA's regulations, certain state requirements are not federally enforceable and must be so designated in operating permits issued for sources subject to the Department's regulations.

11/15/1993

2.0 Definitions

The following definitions apply to this regulation. Except as specifically provided in 2.0 of this regulation, terms used in this regulation retain the meaning accorded them under the applicable requirements of the Act.

"Act" means the Clean Air Act, as amended by the Clean Air Act Amendments of November 15, 1990, 42 U.S.C. 7401 et seq.

"Affected source" means a source that includes one or more *affected units*.

"Affected states" mean all states:

(1) that

(a) are one of the following contiguous states: Maryland, New Jersey and Pennsylvania; and

(b) in the judgment of the Department, may be directly affected by emissions from the facility seeking the permit, permit modification, or permit renewal being proposed; or

(2) that are within 50 miles of the permitted source.

"Affected unit" means a unit that is subject to emission reduction requirements or limitations under Title IV (Acid Disposition Control) of the Act, as defined.

"Applicable requirement" means all of the following as they apply to emissions units in a covered source subject to this regulation (including requirements that have been promulgated or approved by EPA through rulemaking at the time of issuance but have future-effective compliance dates, provided that those requirements will, upon the effective compliance date, be applicable to the operations addressed in the permit):

(1) Any standard or other requirements provided for in the applicable implementation plan approved or promulgated by EPA through rulemaking under Title I (Air pollution Prevention and Control) of the Act that implements the relevant requirements of the Act, including any revisions to that

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plan promulgated in 40 CFR, Part 52 (Approval and Promulgation of Implementation Plans);

(2) Any term or condition of any preconstruction permits issued pursuant to regulations approved or promulgated through rulemaking under Title I (Air Pollution Prevention and Control), including Parts C (Prevention of Significant Deterioration of Air Quality) or D (Plan Requirements for Nonattainment Areas), of the Act;

(3) Any standard or other requirement under section 111 (Standards of Performance for New Stationary Sources) of the Act, including section 111(d);

(4) Any standard or other requirement under section 112 (Hazardous Air Pollutants) of the Act, including any requirement concerning accident prevention under section 112(r)(7) of the Act, but not including the contents of any risk management plan required under section 112(r) of the Act;

(5) Any standard or other requirement of the acid rain program under Title IV (Acid Disposition Control) of the Act, or the regulations promulgated thereunder;

(6) Any requirements established pursuant to section 504(b) (Permit Requirements and Conditions - Monitoring and Analysis) or section 114(a)(3) (Inspections, Monitoring and Entry), of the Act;

(7) Any standard or other requirement governing solid waste incineration, under section 129 (Solid Waste Combustion) of the Act;

(8) Any standard or other requirement for consumer and commercial products, under section 183(e) (Federal Ozone Measures – Control of Emissions from Certain Sources) of the Act;

(9) Any standard or other requirement for tank vessels, under section 183(f) (Federal Ozone Measures - Tank Vessel Standards) of the Act;

(10) Any standard or other requirement of the program to control air pollution from outer continental shelf sources, under section 328 (Air Pollution from Outer Continental Shelf Activities) of the Act;

(11) Any standard or other requirement of the regulations promulgated to protect stratospheric ozone under Title VI (Stratospheric Ozone Protection) of the Act, unless the Administrator has determined that such requirements need not be contained in a Title V (Permits) permit; and

(12) Any national ambient air quality standard or increment or visibility requirement under Part C (Prevention of Significant Deterioration of Air Quality) of Title I (Air Pollution Prevention and Control) of the Act, but only as it would apply to temporary sources permitted pursuant to section 504(e) (Inspection, Monitoring and Entry - Temporary Sources) of the Act.

"Area source" means any stationary source of hazardous air pollutants that is not a major source. For purposes of this regulation, the term "area source" shall not include motor vehicles or nonroad vehicles subject to regulation under Title II (National Emission Standards) of the Act.

"Covered source" means sources to which this regulation applies pursuant to 3.0 of this regulation.

"Department" means the Delaware Department of Natural Resources and Environmental Control as defined in 29 Del.C. Ch 80, as amended.

"Designated representative" means a responsible person or official authorized by the owner or operator of a unit to represent the owner or operator in matters pertaining to the holding, transfer or disposition of allowances allocated to a unit and the submission of and compliance with permits, permit applications and compliance plans for the unit, and shall have the meaning given to it in the regulations promulgated under the Act.

"Draft permit" means the version of a permit for which the Department offers public participation under 7.10 or affected state review under 8.1 of this regulation.

"Emissions allowable under the permit" means a federally enforceable permit term or condition determined at issuance to be required by an applicable requirement that establishes an emissions limit (including a work practice standard) or a federally enforceable emissions cap that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject.

"Emission unit" means any part or activity of a stationary source that emits or has the potential to emit any regulated air pollutant or any pollutant listed under section 112(b) (Hazardous Air

Pollutants - List of Pollutants) of the Act. This term is not meant to alter or affect the definition of the term "unit" for purposes of Title IV (Acid Disposition Control) of the Act.

"The EPA or the Administrator" means the Administrator of the EPA or his designee.

"Final permit" means the version of a Part 70 permit issued by the Department that has completed all review procedures required by 7.0 and 8.0 of this regulation.

"Fugitive emissions" mean those emissions which could not reasonably pass through a stack, chimney, vent, or other functionally-equivalent opening.

"Major source" means any stationary source (or any group of stationary sources that are located on one or more contiguous or adjacent properties, and are under common control of the same person (or persons under common control)) belonging to a single major industrial grouping and that are described in paragraph (1), (2), or (3) of this definition. For the purposes of defining "major source," a stationary source or group of stationary sources shall be considered part of a single industrial grouping if all of the pollutant emitting activities at such source or group of sources on contiguous or adjacent properties belong to the same Major Group (i.e., all have the same two-digit code) as described in the Standard Industrial Classification Manual, 1987.

(1) A major source under section 112 (Hazardous Air Pollutants) of the Act, defined as:

(i) For pollutants other than radionuclides, any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit, in the aggregate, 10 tons per year ("tpy") or more of any hazardous air pollutant which has been listed pursuant to section 112(b) (Hazardous Air Pollutants - List of Pollutants) of the Act, 25 tpy or more of any combination of such hazardous air pollutants, or such lesser quantity as the Administrator may establish by rule. Notwithstanding the preceding sentence, emissions from any oil or gas exploration or production well (with its associated equipment) and emissions from any pipeline compressor or pump station shall not be aggregated with emissions from other similar units, whether or not such units are in a contiguous area or under common control, to determine whether such units or stations are major sources; or

(ii) For radionuclides, "major source" shall have the meaning specified by the Administrator by rule.

(2) A major stationary source of air pollutants, as defined in section 302 (Title III - General Definitions) of the Act, that directly emits or has the potential to emit, 100 tpy or more of any air pollutant subject to regulation (including any major source of fugitive emissions of any such pollutant, as determined by rule by the Administrator). The fugitive emissions of a stationary source shall not be considered in determining whether it is a major stationary source for the purposes of section 302(j) (Title III - General Definitions) of the Act, unless the source belongs to one of the following categories of stationary sources:

(i) Coal cleaning plants (with thermal dryers);

(ii) Kraft pulp mills;

(iii) Portland cement plants;

(iv) Primary zinc smelters;

(v) Iron and steel mills;

(vi) Primary aluminum ore reduction plants;

(vii) Primary copper smelters;

(viii) Municipal incinerators capable of charging more than 250 tons of refuse per day;

(ix) Hydrofluoric, sulfuric, or nitric acid plants;

(x) Petroleum refineries;

(xi) Lime plants;

(xii) Phosphate rock processing plants;

(xiii) Coke oven batteries;

(xiv) Sulfur recovery plants;

(xv) Carbon black plants (furnace process);

(xvi) Primary lead smelters;

(xvii) Fuel conversion plants;

(xviii) Sintering plants;

(xix) Secondary metal production plants;

(xx) Chemical process plants;

(xxi) Fossil-fuel boilers (or combination thereof) totaling more than 250 million British thermal units per hour heat input;

(xxii) Petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels;

(xxiii) Taconite ore processing plants;

(xxiv) Glass fiber processing plants;

(xxv) Charcoal production plants;

(xxvi) Fossil-fuel-fired steam electric plants of more than 250 million British thermal units per hour heat input; or

(xxvii) All other stationary source categories regulated by a standard promulgated under section 111 (Standards of Performance for New Stationary Sources) or section 112 (Hazardous Air Pollutants) of the Act, but only with respect to those air pollutants that have been regulated for that category.

(3) A major stationary source as defined in Part D (Plan Requirements for Nonattainment Areas) of Title I (Air Pollution Prevention and Control) of the Act, including:

(i) For ozone nonattainment areas, sources with the potential to emit 100 tpy or more of volatile organic compounds or oxides of nitrogen in areas classified as "marginal" or "moderate," 50 tpy or more in areas classified as "serious," 25 tpy or more in areas classified as "severe," and 10 tpy or more in areas classified as "extreme"; except that the references in this paragraph to 100, 50, 25, and 10 tpy of nitrogen oxides shall not apply with respect to any source for which the Administrator has made a finding, under section 182(f) (1) (2) (Plan Submissions and Requirements – NO_x Requirements) of the Act, that requirements under section 182(f) of the Act do not apply;

(ii) For ozone transport regions established pursuant to section 184 (Control of Interstate Ozone Air Pollution) of the Act, sources with the potential to emit 50 tpy or more of volatile organic compounds;

(iii) For carbon monoxide nonattainment areas:

(A) that are classified as "serious", and

(B) in which stationary sources contribute significantly to carbon monoxide levels as determined under rules issued by the Administrator, sources with the potential to emit 50 tpy or more of carbon monoxide; and

(iv) For particulate matter (PM_{10}) nonattainment areas classified as "serious", sources with the potential to emit 70 tpy or more of PM_{10}.

(4) For purposes of this regulation, a research and development operation may be treated as a separate source from other stationary sources that are located on a contiguous or adjacent property and under common control only if that operation belongs to a different major group as described in the Standard Industrial Classification Manual, 1987.

"Part 70 permit or permit" (unless the context suggests otherwise) means any permit or group of permits covering a covered source that is issued, renewed, amended, or revised pursuant to this regulation.

"Part 70 program or state program" means a program approved by the Administrator under 40 CFR Part 70 (State Operating Permit Programs).

"Part 70 or Part 70 regulations" means EPA's regulations published at 40 CFR Part 70, July 21, 1992 (State Operating Permit Programs).

"Permit modification" means a revision to a Part 70 permit that meets the requirements of 7.5 of this regulation.

"Permit revision" means any permit modification or administrative permit amendment.

"Potential to emit" means the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of

operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation is enforceable by the Administrator or the Department. This term does not alter or affect the use of this term for any other purposes under the Act, or the term "capacity factor" as used in Title IV (Acid Disposition Control) of the Act, or the regulations promulgated thereunder.

"Proposed permit" means the version of a permit that the Department proposes to issue and forwards to the Administrator for review in compliance with 8.0 of this regulation.

"Regulated air pollutant" means the following:

(1) Nitrogen oxides or any volatile organic compounds;

(2) Any pollutant for which a national ambient air quality standard has been promulgated;

(3) Any pollutant that is subject to any standard promulgated under section 111 (Standards of Performance for New Stationary Sources) of the Act;

(4) Any Class I or II substance subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the Act; or

(5) Any pollutant subject to standards promulgated under section 112(d), (f) and (h) (Hazardous Air Pollutants), or other requirements established under sections 112(g), (j), and (r) of the Act. Where such a standard or other requirement applies only to one or more sources or categories of sources of an air pollutant, that pollutant is a "regulated air pollutant" only with respect to those sources or categories. If the Administrator fails to promulgate a standard by the date established pursuant to section 112(e) of the Act, any pollutant for which a subject source would be major shall be considered to be regulated as to that source on the date 18 months after the applicable date established pursuant to section 112(e) of the Act.

"Responsible official" means one of the following:

(1) For a corporation: a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit, and either:

(i) The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding $25 million (in second quarter, 1980 dollars); or

(ii) The delegation of authority to such representative is approved in advance by the Department.

(2) For a partnership or sole proprietorship: a general partner or the proprietor, respectively, or the delegation of authority to a representative approved in advance by the Department;

(3) For a municipality, state, federal, or other public agency: Either a principal executive officer or ranking elected official. For purposes of this regulation, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of EPA); or

(4) For affected sources:

(i) The designated representative in so far as actions, standards, requirements, or prohibitions under Title IV (Acid Disposition Control) of the Act, or the regulations promulgated thereunder are concerned; and

(ii) The designated representative for any other purposes under this regulation.

"Section 502(b)(10) changes" (Permit Programs - Regulations) mean changes that contravene an express permit term. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.

"Source category" means sources which may have the same or similar operations, emissions, activities; which may emit the same type of regulated air pollutants; which are subject to the same or similar standards, limitations and operating requirements; or which may be subject to the same or similar monitoring requirements.

"Source category permit" means a Part 70 permit that meets the requirements of 6.4 of this regulation.

"Stationary source" means any building, structure, facility, or installation that emits or may emit any regulated air pollutant or any pollutant listed under section 112(b) (Hazardous Air Pollutants - List of Pollutants) of the Act.

"Subject to regulation" means, for any air pollutant, that the pollutant is subject to either a provision in the Clean Air Act, or a nationally-applicable regulation codified by the EPA, that requires actual control of the quantity of emissions of that pollutant, and that such a control requirement has taken effect and is operative to control, limit or restrict the quantity of emissions of that pollutant released from the regulated activity. Except that:

(1) Greenhouse gases (GHG), the air pollutant defined in 40 CFR 86.1818 – 12(a), September 2, 2010, as the aggregate group of six greenhouse gases: carbon dioxide (CO_2), nitrous oxide (N_2O), methane (CH_4), hydrofluorocarbons (HFC), perfluorocarbons (PFC), and sulfur hexafluoride (SF_6), shall not be subject to regulation unless, as of July 1, 2011, the GHG emissions are at a stationary source emitting or having the potential to emit 100,000 tpy CO_2 equivalent emissions.

(2) The term tpy CO_2 equivalent emissions (CO_2e) shall represent an amount of GHG emitted, and shall be computed by multiplying the mass amount of emissions (tpy), for each of the six greenhouse gases in the pollutant GHG, by the gas's associated global warming potential as shown in Table 2-1 of this regulation "Global Warming Potentials", and summing the resultant value for each to compute a tpy CO_2e.

Table 2-1

GLOBAL WARMING POTENTIALS

Name	CAS No.	Chemical formula	Global warming potential (100 yr.)
Carbon dioxide	124–38–9	CO_2	1
Methane	74–82–8	CH_4	21
Nitrous oxide	10024–97–2	N_2O	310
HFC–23	75–46–7	CHF_3	11,700
HFC–32	75–10–5	CH_2F_2	650
HFC–41	593–53–3	CH_3F	150
HFC–125	354–33–6	C_2HF_5	2,800
HFC–134	359–35–3	$C_2H_2F_4$	1,000
HFC–134a	811–97–2	CH_2FCF_3	1,300
HFC–143	430–66–0	$C_2H_3F_3$	300
HFC–143a	420–46–2	$C_2H_3F_3$	3,800
HFC–152	624–72–6	CH_2FCH_2F	53
HFC–152a	75–37–6	CH_3CHF_2	140
HFC–161	353–36–6	CH_3CH_2F	12
HFC–227ea	431–89–0	C_3HF_7	2,900
HFC–236cb	677–56–5	$CH_2FCF_2CF_3$	1,340
HFC–236ea	431–63–0	CHF_2CHFCF_3	1,370
HFC–236fa	690–39–1	$C_3H_2F_6$	6,300
HFC–245ca	679–86–7	$C_3H_3F_5$	560
HFC–245fa	460–73–1	$CHF_2CH_2CF_3$	1,030
HFC–365mfc	406–58–6	$CH_3CF_2CH_2CF_3$	794

HFC–43–10mee	138495–42–8	$CF_3CFHCFHCF_2CF_3$	1,300
Sulfur hexafluoride	2551–62–4	SF_6	23,900
PFC–14 (Perfluoromethane)	75–73–0	CF_4	6,500
PFC–116 (Perfluoroethane)	76–16–4	C_2F_6	9,200
PFC–218 (Perfluoropropane)	76–19–7	C_3F_8	7,000
Perfluorocyclopropane	931–91–9	$C\text{-}C_3F_6$	17,340
PFC–3–1–10 (Perfluorobutane)	355–25–9	C_4F_{10}	7,000
Perfluorocyclobutane	115–25–3	$C\text{-}C_4F_8$	8,700
PFC–4–1–12 (Perfluoropentane)	678–26–2	C_5F_{12}	7,500
PFC–5–1–14 (Perfluorohexane)	355–42–0	C_6F_{14}	7,400
PFC–9–1–18	306–94–5	$C_{10}F_{18}$	7,500

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3.0 Applicability

3.1 Covered Sources. Except as exempted from the requirement to obtain a permit under 3.2 of this regulation and elsewhere herein, the following sources are subject to the permitting requirements under this regulation:

3.1.1 Any major source;

3.1.2 Any source, including an area source, subject to a standard, limitation, or other requirement under Section 111 (Standards of Performance for New Stationary Sources) of the Act;

3.1.3 Any source, including an area source, subject to a standard or other requirement under section 112 (National Emissions Standards for Hazardous Air Pollutants) of the Act, except that a source is not required to obtain a permit solely because it is subject to regulations or requirements under section 112(r) of the Act;

3.1.4 Any affected source; and

3.1.5 Any source that is subject to applicable requirements.

3.2 Source Category Exemptions

3.2.1 All sources listed in 3.1 of this regulation that are not (i) major sources, (ii) affected sources, or (iii) solid waste incineration units required to obtain a permit pursuant to section 129(e) (Solid Waste Combustion - Permits) of the Act, are exempt from the obligation to obtain a Part 70 permit. Any such exempt source may opt to apply for a permit under this regulation and shall be issued a permit if the applicant otherwise satisfies all of the requirements of this regulation.

3.2.2 Sources in the following source categories are exempted from the obligation to obtain a permit under this regulation:

3.2.2.1 All sources in source categories that would be required to obtain a permit solely because they are subject to 40 CFR Part 60, Subpart AAA, "Standards of Performance for New Residential Wood Heaters"; and

3.2.2.2 All sources in source categories that would be required to obtain a permit solely because they are subject to 40 CFR Part 61, Subpart M, "National Emission Standards for Hazardous Air Pollutants" for Asbestos, section 61.145, "Standard for Demolition and Renovation".

3.3 Emissions Units and Covered Sources

3.3.1 For major sources, the permit shall include all applicable requirements for all emissions units in the major source.

3.3.2 For any nonmajor source subject to the Part 70 Program under 3.1 or 3.2 of this regulation, the permit shall include all applicable requirements applicable to emissions units that cause the source to be subject to the Part 70 Program.

3.4 Fugitive Emissions. Fugitive emissions from a covered source shall be included in the permit application and the permit in the same manner as stack emissions, regardless of whether the source category in question is included in the list of sources contained in the definition of major source.

3.5 Nonmajor Sources. In the case of nonmajor sources subject to a standard or other requirement under either section 111 or section 112 of the Act after July 21, 1992, the Administrator will determine whether to exempt any or all such applicable sources from the requirement to obtain a Part 70 Permit at the time that the new standard is promulgated.

3.6 Variances. Any determination by the Secretary to not require a permit under 7 Del.C. Ch 60, §6003(e), or any variance granted by the Secretary under 7 Del.C. Ch 60, §6011, shall not apply to this rule until such time as the exemption or variance is approved by the Administrator.

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4.0 Reserved

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5.0 Permit Applications

5.1 Duty to Apply

5.1.1 Timely Application

5.1.1.1 The owners or operators of covered sources, as of the date the program is approved by EPA and becomes effective (the "effective date"), shall file applications on the following schedule:

5.1.1.1.1 Sources that have the potential to emit in the aggregate 150 tons per year or less of regulated air pollutants shall file complete applications within six months of the effective date, provided that, upon request and for good cause shown, the Department may allow a source additional time up to 12 months from the effective date; and

5.1.1.1.2 All other sources shall file complete applications within 12 months of the effective date; and

5.1.1.1.3 Sources requesting creation of a source category shall submit a petition within 90 days of the effective date. If the Department finds that a source category is not appropriate, the source shall file a complete standard application within 12 months of the effective date.

5.1.1.2 The owners or operators of a source that becomes subject to the operating permit program established by this regulation at any time following the effective date shall file a complete application or petition for establishment of a source category or submit a source category application for a previously-adopted source category within 12 months of the date on which the source first becomes subject to the program.

5.1.1.3 Notwithstanding the deadlines established in 5.1.1.1 and 5.1.1.2 of this regulation, a complete application filed at any time following submission of the State program to EPA for approval and before such time as the State program is approved, shall be accepted for processing.

5.1.1.4 A source that is required to meet the requirements under section 112(g) of the Act, or to have a permit under a preconstruction review program under Title I of the Act, shall file a complete application to obtain an operating permit or permit amendment or modification within 12 months of commencing operation, provided that, a source that is required to obtain a preconstruction permit may submit an application for an operating permit or permit modification for concurrent processing. An operating permit application submitted for concurrent processing shall be submitted with the source's preconstruction review application or at such later time as the Department may allow. Where an existing

Part 70 permit would prohibit such construction or change in operation, the source must obtain a permit revision before commencing operation.

5.1.1.5 Covered sources shall file an application for renewal of an operating permit at least six months before the date of permit expiration, unless a longer period [not to exceed 18 months] is specified in the permit.

5.1.1.6 Sources required to submit applications for initial phase II acid rain permits shall submit such applications to the Department by January 1, 1996 for sulfur dioxide, and by January 1, 1998 for nitrogen oxides as specified in 40 CFR, Part 70.5(a)(iv).

5.1.1.7 The applicant is encouraged to consult with Department personnel before submitting an application or, at any other time, concerning the operation, construction, expansion, or modification of any installation, or concerning the required pollution control devices or system, the efficiency of such devices or system, or the pollution problem related to the installation.

5.1.2 Complete Application

5.1.2.1 The Department shall review each application, including each petition for establishment of a source category, for completeness, and shall inform the applicant within 60 days of receipt if the application is incomplete or if a source category is not appropriate. In order to be complete for purposes of 5.0 of this regulation, an application must include a completed application form and, to the extent not called for by the form, the information required in 5.4 of this regulation. Unless the Department requests additional information or otherwise notifies the applicant of incompleteness within 60 days of an application, an application will be deemed complete if it contains the information required by the application form and 5.4 of this regulation.

5.1.2.2 If the Department does not notify the source within 60 days of receipt that its application is incomplete or that a source category petition is not applicable, the application or source category petition shall be deemed complete. However, nothing in 5.1.2 of this regulation shall prevent the Department from requesting additional information that is necessary to process the application.

5.1.2.3 If, while processing an application that has been determined or deemed to be complete, the Department determines that additional relevant information is reasonably necessary to evaluate or take final action on that application, the Department may request such additional information in writing. In requesting such information, the Department shall establish a reasonable deadline for a response. The applicant may request an extension of the deadline for the response.

5.1.2.4 In submitting an application for renewal of an operating permit issued under this regulation, a source may identify terms and conditions in its previous permit that should remain unchanged and incorporate by reference those portions of its existing permit and the permit application and any permit amendment or modification applications that describe products, processes, operations, and emissions to which those terms and conditions apply. The source must identify specifically and list which portions of its previous permit or applications are incorporated by reference. The Department shall review the list of terms and conditions from the previous permit that the source submits to be unchanged and make a determination as to the terms and conditions to be incorporated into the renewed permit. In addition, a renewal application must contain:

5.1.2.4.1 information specified in 5.4 of this regulation for those products, processes, operations, and emissions that

5.1.2.4.1.1 are not addressed in the existing permit;

5.1.2.4.1.2 are subject to applicable requirements that are not addressed in the existing permit; or

5.1.2.4.1.3 the source seeks permit terms and conditions that differ from those in the existing permit; and

5.1.2.4.2 a compliance plan and certification as required in 5.4.8 of this regulation.

5.1.3 Checklist

5.1.3.1 The Department shall make available to applicants application forms, together with a checklist of items required for a complete application package. An application will be deemed complete in the first instance if the applicant supplies a completed application form, together with the other items on the checklist, and complies with any requests from the Department for additional information.

5.1.3.2 No completeness determination shall be required for applications for minor permit modification procedures under 7.5.1 of this regulation. The foregoing does not relieve the applicant from the requirement to submit a complete application in accordance with 7.5 of this regulation.

5.1.4 Confidential Information. If a source submits information to the Department under a claim of confidentiality, the source shall also submit a copy of such information directly to the Administrator, if the Department requests that the source do so. Confidential information shall meet the requirements of 7 Del.C., Ch 60, §6014, and 29 Del.C., Ch 100. However, by submitting a permit application, a source waives any right to confidentiality as to the contents of its permit, and the permit contents will not be entitled to protection under 7 Del.C., Ch 60, §6014.

5.2 Duty to Supplement or Correct Application

Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information. In addition, an applicant shall provide additional information as necessary to address any requirements that become applicable to the source after the date it filed a complete application but prior to release of a draft permit.

5.3 Insignificant Activities.

An application may not omit information needed to determine the applicability of, or to impose, any applicable requirement, including those that become applicable after the effective date of this regulation. The emissions from the activities listed in Appendix A of this regulation shall be included for purposes of determining whether a source is subject to this rule, or when determining the applicability of any applicable requirement.

5.4 Standard Application Form and Required Information

Covered sources shall submit applications on the standard application form or the source category permit application form that the Department provides for that purpose. The application must include information needed to determine the applicability of any applicable requirement or to evaluate the fee amount as established from time to time by the Delaware General Assembly. The applicant shall submit the information called for by the application form for each emissions unit at the source to be permitted, except for insignificant activities listed on Appendix A of this regulation and those activities listed in 3.2.2 of this regulation. The source must provide a list of any such activities that are excluded because of size, emissions rate, or production rate; however, an application may not omit information needed to determine the applicability of, or to impose, an applicable requirement. The emissions from the activities listed in Appendix A of this regulation shall be included for purposes of determining whether a source is subject to this rule, or when determining the applicability of any applicable requirement. The standard application form and any attachments shall require that the following information be provided:

5.4.1 Identifying information, including company name and address (or plant name and address if different from the company name), owner's name and agent, and telephone number and names of plant site manager/contact.

5.4.2 A description of the source's processes and products (by two-digit Standard Industrial Classification Code) including any associated with each alternate scenario identified by the source.

5.4.3 The following emissions-related information:

5.4.3.1 All emissions of pollutants for which the source is major, and all emissions of regulated air pollutants. The permit application shall describe all emissions of regulated air pollutants emitted from any emissions unit, except where such units are exempted under 5.4 or 3.2 of this regulation. The source shall submit additional information related to the emissions of air pollutants sufficient to verify which requirements are applicable to the source, and other information necessary to determine the amount of any permit fees owed under the fee schedule as established from time to time by the Delaware General Assembly.

5.4.3.2 Identification and description of all points of emissions described in 5.4.3.1 of this regulation in sufficient detail to establish the basis for fees and applicability of the Act's requirements.

5.4.3.3 Emissions rates in tons per year, and in such terms as are necessary to establish compliance consistent with the applicable regulation and with the applicable standard reference test method, if any.

5.4.3.4 The following information to the extent it is needed to determine or regulate emissions: fuels, fuel use, raw materials, production rates, and operating schedules.

5.4.3.5 Identification and description of air pollution control equipment and compliance monitoring devices or activities.

5.4.3.6 Limitations on source operation affecting emissions or any work practice standards, where applicable, for all regulated air pollutants at the covered source.

5.4.3.7 Other information required by any applicable requirement (including information related to stack height limitations developed pursuant to section 123 of the Act).

5.4.3.8 Calculations on which the information in 5.4.3.1 through 5.4.3.7 of this regulation is based.

5.4.4 The following air pollution control requirements:

5.4.4.1 Citation and description of all applicable requirements, and

5.4.4.2 Description of or reference to any applicable test method for determining compliance with each applicable requirement.

5.4.5 Other specific information required under 7 DE Admin. Code 1100, "Regulations Governing the Control of Air Pollution," to implement and enforce other applicable requirements of the Act or of this regulation, or to determine the applicability of such requirements.

5.4.6 An explanation of any proposed exemptions from otherwise applicable requirements.

5.4.7 Additional information as determined to be necessary by the Department to define alternative operating scenarios identified by the source pursuant to 6.1.10 of this regulation or to define permit terms and conditions implementing 6.8 or 6.1.11 of this regulation.

5.4.8 A compliance plan for all covered sources that contains all the following:

5.4.8.1 A description of the compliance status of the source with respect to all applicable requirements.

5.4.8.2 A description as follows:

5.4.8.2.1 For applicable requirements with which the source is in compliance, a statement that the source will continue to comply with such requirements.

5.4.8.2.2 For applicable requirements that will become effective during the permit term, a statement that the source will meet such requirements on a timely basis.

5.4.8.2.3 For applicable requirements for which the source is not in compliance at the time of permit issuance, a narrative description of how the source will achieve compliance with such requirements.

5.4.8.3 A compliance schedule as follows:

5.4.8.3.1 For applicable requirements with which the source is in compliance, a statement that the source will continue to comply with such requirements.

5.4.8.3.2 For applicable requirements that will become effective during the permit term, a statement that the source will meet such requirements on a timely basis. A statement that the source will meet in a timely manner applicable requirements that become effective during the permit term shall satisfy this provision, unless a more detailed schedule is expressly required by the applicable requirement.

5.4.8.3.3 A schedule of compliance for sources that are not in compliance with all applicable requirements at the time of permit issuance. Such a schedule shall include a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance with any applicable requirements for which the source will be in noncompliance at the time of permit issuance. This compliance schedule shall resemble and be at least as stringent as that contained in any judicial consent decree or administrative order to which the source is subject. Any such schedule of compliance will be supplemental to, and shall not sanction noncompliance with, the applicable requirements upon which it is based.

5.4.8.4 A schedule for submission of certified progress reports no less frequently than every six months for sources required to have a schedule of compliance under 5.4.8 of this regulation.

5.4.8.5 The compliance plan content requirements specified in 5.4.8 of this regulation shall apply and be included in the acid rain portion of a compliance plan for an affected source, except as specifically superseded by regulations promulgated under Title IV of the Act with regard to the schedule and method or methods the source will use to achieve compliance with the acid rain emissions limitations.

5.4.9 Requirements for compliance certification, including the following:

5.4.9.1 A certification of compliance with all applicable requirements by a responsible official consistent with 5.6 of this regulation and section 114(a)(3) of the Act;

5.4.9.2 A statement of methods used for determining compliance, including a description of monitoring, recordkeeping, and reporting requirements and test methods;

5.4.9.3 A schedule for submission of compliance certifications during the permit term, which shall be submitted annually, or more frequently if specified by an underlying applicable requirement or by the Department; and

5.4.9.4 A statement indicating the source's compliance status with any applicable enhanced monitoring and compliance certification requirements of the Act.

5.4.10 The use of nationally-standardized forms for acid rain portions of permit applications and compliance plans, as required by regulations promulgated under Title IV of the Act

5.5 Source Category Permit Application Form

The Department shall provide for a source category permit Application Form for each designated source category approved for such permit coverage, which shall require such information as the Department determines is necessary to evaluate the appropriateness and applicability of the source for inclusion under the provisions of a source category. An applicant shall submit the information called-for by the application, which shall meet the requirements of Title V of the Act, and include all information necessary to determine qualification for and to ensure compliance with the source category permit.

5.6 Certification

Any application form, report, or compliance certification submitted pursuant to this regulation shall contain certification by a responsible official of truth, accuracy, and completeness. This certification and any other certification required under this regulation shall be signed by a responsible official and shall contain the following language: "I certify, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete."

12/11/2000

6.0 Permit Contents

6.1 Standard Permit Requirements. Each permit issued under this regulation shall include all applicable requirements that apply to the permitted source at the time of issuance. Each permit shall include the following elements:

6.1.1 Emission Limitations and Standards. The permit shall specify emissions limitations and standards that constitute applicable requirements, and shall include those operational requirements and limitations necessary to assure compliance with all applicable requirements at the time of permit issuance.

6.1.1.1 The permit shall specify and reference the origin of and authority for each term or condition, and identify any difference in form as compared to the applicable requirement upon which the term or condition is based.

6.1.1.2 The permit shall state that, where an applicable requirement of the Act is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, both provisions shall be incorporated into the permit and shall be enforceable by EPA.

6.1.1.3 If an applicable implementation plan or an applicable requirement allows a source to comply through an alternative emission limit or means of compliance, a source may request that such an alternative limit or means of compliance be specified in its permit. Such an alternative emission limit or means of compliance shall be included in a source's permit upon a showing that it is quantifiable, accountable, enforceable, and based on replicable procedures. The source shall propose permit terms and conditions to satisfy these requirements in its application.

6.1.2 Permit Duration. The permit shall specify a fixed term. The Department shall issue permits for any fixed period requested in the permit application, not to exceed five years, except as provided in 6.1.2.1 and 6.1.2.2 of this regulation:

6.1.2.1 Permits issued to affected sources shall in all cases have a fixed term of five years.

6.1.2.2 Permits issued to solid waste incineration units combusting municipal waste subject to standards under section 129(e) of the Act shall have a term not to exceed 12 years. Such permits shall be reviewed every five years.

6.1.3 Monitoring and Related Recordkeeping and Reporting Requirements.

6.1.3.1 Each permit shall contain the following requirements with respect to monitoring:

6.1.3.1.1 All emissions monitoring and analysis procedures or test methods required under the applicable requirements, including any procedures and methods promulgated pursuant to sections 114(a)(3) or 504(b) of the Act;

6.1.3.1.2 Where the applicable requirement does not require periodic testing or instrumental or non-instrumental monitoring (which may consist of recordkeeping designed to serve as monitoring), periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit, as reported pursuant to 6.1.3.3 of this regulation. Such monitoring requirements shall assure use of terms, test methods, units, averaging periods, and other statistical conventions consistent with the applicable requirement. Recordkeeping provisions may be sufficient to meet the requirements of 6.1.3 of this regulation; and

6.1.3.1.3 As necessary, requirements concerning the use, maintenance, and, where appropriate, installation of monitoring equipment or methods.

6.1.3.2 With respect to recordkeeping, the permit shall incorporate all applicable recordkeeping requirements and require, where applicable, the following:

6.1.3.2.1 Records of required monitoring information that include the following:

6.1.3.2.1.1 The date, place as defined in the permit, and time of sampling or measurements;

6.1.3.2.1.2 The date(s) analyses were performed;

6.1.3.2.1.3 The company or entity that performed the analyses;

6.1.3.2.1.4 The analytical techniques or methods used;

6.1.3.2.1.5 The results of such analyses; and

6.1.3.2.1.6 The operating conditions as existing at the time of sampling or measurement.

6.1.3.2.2 Retention of records of all required monitoring data and support information for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings, where appropriate, for continuous monitoring instrumentation, and copies of all reports required by the permit. Where appropriate, the permit may specify that records may be maintained in computerized form.

6.1.3.2.3 Unless otherwise mandated by applicable requirements, a permit may require that records be kept of data, or periodic samples of monitoring data, where such data are, in the judgment of the Department, adequate and necessary to demonstrate continued compliance with the terms and conditions of the permit. The provision of 6.1.3.2.3 of this regulation shall not supersede 6.1.3.2.1 or 6.1.3.2.2 of this regulation.

6.1.3.3 With respect to reporting, the permit shall incorporate all applicable reporting requirements and require the following:

6.1.3.3.1 A permit issued under these regulations shall require the permittee to submit a report of any required monitoring every six months. To the extent possible, the schedule for submission of such reports shall be timed to coincide with other periodic reports required by the permit, including the permittee's annual compliance certification.

6.1.3.3.2 Each report submitted under 6.1.3.3.1 of this regulation shall identify any deviations from permit requirements since the previous report, and any deviations from the monitoring, recordkeeping and reporting requirements under the permit.

6.1.3.3.3 In addition to semiannual monitoring reports, each permittee shall be required to submit supplemental reports as follows:

6.1.3.3.3.1 Any deviation resulting from emergency or malfunction conditions as defined in 6.7 of this regulation shall be reported within two working days of the date on which the permittee first becomes aware of the deviation, if the permittee wishes to assert the affirmative defense authorized under 6.7 of this regulation;

6.1.3.3.3.2 Any deviation that poses an imminent and substantial danger to public health, safety, or the environment shall be reported immediately upon discovery and after activating the appropriate site emergency plan;

6.1.3.3.3.3 Any other deviations that are identified in the permit as requiring more frequent reporting than the permittee's semiannual report shall be reported on the schedule specified in the permit;

6.1.3.3.3.4 All reports of deviations from permit conditions shall identify the probable cause of the deviations and any corrective actions or preventative measures taken.

6.1.3.3.3.5 Nothing herein shall relieve the permittee from any reporting requirements under federal, state or local laws.

6.1.3.3.4 Every report submitted under 6.1.3 of this regulation shall be certified by a responsible official, except that if a report of a deviation required under 6.1.3.3.3 of this regulation must be submitted within 10 days of the deviation, the report may be submitted in the first instance without a certification if an appropriate certification is provided within 10 days thereafter, together with any corrected or supplemental information required concerning the deviation.

6.1.3.3.5 A permittee may request confidential treatment for information in any report submitted under 6.1.3 of this regulation pursuant to the limitations and procedures set out in 5.1.4 of this regulation.

6.1.4 Risk Management Plans. If the source is required to develop and register a risk management plan pursuant to section 112(r) of the Act, the permit need only specify that it will comply with the requirement to register such a plan. The content of the risk management plan need not itself be incorporated as a permit term.

6.1.5 Emissions Exceeding Title IV Allowances. The permit shall prohibit emissions exceeding any allowances that the source lawfully holds under Title IV of the Act or the regulations promulgated thereunder.

6.1.5.1 No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the acid rain program, provided that such increases do not require a permit revision under any other applicable requirement.

6.1.5.2 No limit shall be placed on the number of allowances held by the source. The source may not, however, use allowances as a defense to noncompliance with any other applicable requirement.

6.1.5.3 Any such allowance shall be accounted for according to the procedures established in regulations promulgated under Title IV of the Act.

6.1.6 Severability Clause. The permit shall include a severability clause to ensure the continued validity of the various permit requirements in the event of a challenge to any portions of the permit.

6.1.7 General Requirements. The permit shall include provisions stating the following:

6.1.7.1 The permittee must comply with all conditions of the permit. Any noncompliance with the permit constitutes a violation of the Act and is grounds for enforcement action, for permit termination, revocation and reissuance or modification, or for denial of a permit renewal application.

6.1.7.2 It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. However, nothing in 6.1.7 of this regulation shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in assessing penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continuing operations.

6.1.7.3 The permit may be modified, revoked, reopened, and reissued, or terminated for cause. Except as provided under 7.5.1 of this regulation for minor permit modifications, the filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a modification of planned changes or anticipated noncompliance does not stay any permit condition.

6.1.7.4 The permit does not convey any property rights of any sort, or any exclusive privilege.

6.1.7.5 The permittee shall furnish to the Department, upon receipt of a written request and within a reasonable time, any information that the Department may request to determine whether cause exists to modify, terminate or revoke the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Department copies of records required to be kept by the permit. The permittee may make a claim of confidentiality pursuant to 5.1.4 of this regulation for any information or records submitted under 6.1.7 of this regulation.

6.1.8 Fees. The permit shall provide that the permittee will pay fees to the Department consistent with the fee schedule established from time to time by the Delaware General Assembly.

6.1.9 Emissions Trading. The permit shall provide that no permit revision shall be required under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in the permit.

6.1.10 Operating Scenarios. The permit shall include terms and conditions applicable to all operating scenarios described in the permit application and eligible for approval under applicable requirements. The permit shall authorize the permittee to make changes among operating scenarios authorized in the permit without notice, but shall require the permittee contemporaneously with making a change from one operating scenario to another to record in a log at the permitted facility the scenario under which it is operating. Each operating scenario shall meet all applicable requirements, and the requirements of this regulation.

6.1.11 Emissions Averaging. The permit shall include terms and conditions, if the permit applicant requests them, for the trading or averaging of emissions increases and decreases in the permitted facility, to the extent that the applicable requirements provide for trading or averaging such increases and decreases. Such terms and conditions shall include terms under 6.1 and 6.3 of this regulation to determine compliance and shall satisfy all requirements of the applicable requirements authorizing such trading or averaging.

6.2 Federally Enforceable Requirements

6.2.1 Except as provided in 6.2.2 of this regulation, all terms and conditions in a permit issued under 6.0 of this regulation, including any provisions designed to limit a source's potential to emit, are enforceable by the Department, by EPA, and by citizens under section 304 of the Act.

6.2.2 Notwithstanding 6.2.1 of this regulation, the Department shall designate as not being federally enforceable under the Act any terms and conditions included in the permit that are not required under the Act or any of its applicable requirements, and such terms and conditions shall not be enforceable by EPA and citizens under section 304 of the Act. Terms and conditions so designated shall not be subject to the requirements of 7.0 and 8.0 of this regulation or of 40 CFR Part 70. Terms and conditions designated under 6.2 of this regulation may be included in an addendum to the source's permit.

6.3 Compliance Requirements. All permits issued under this regulation shall contain the following elements with respect to compliance:

6.3.1 Consistent with 6.1.3 of this regulation, compliance certification, testing, monitoring, reporting, and recordkeeping requirements sufficient to assure compliance with the terms and conditions of the permit. Any document (including reports) required by a permit under this regulation shall contain a certification by a responsible official that meets the requirements of 5.6 of this regulation.

6.3.2 Inspection and entry requirements that require that, upon presentation of identification, the permittee shall allow authorized officials of the Department to perform the following:

6.3.2.1 Enter upon the permittee's premises where a source is located or emissions-related activity is conducted, or where records that must be kept under the conditions of the permit may be located;

6.3.2.2 Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;

6.3.2.3 Inspect at reasonable times and using reasonable safety practices any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and

6.3.2.4 As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

6.3.3 A schedule of compliance to the extent required under 5.4.8.3 of this regulation.

6.3.4 To the extent required under an applicable schedule of compliance and 5.4.8 of this regulation, progress reports, to be submitted at least semiannually, or more frequently if specified in the applicable requirement or by the Department. Such progress reports shall contain the following:

6.3.4.1 Dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when such activities, milestones or compliance were achieved; and

6.3.4.2 An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

6.3.5 Requirements for compliance certification with terms and conditions contained in the permit, including emission limitations, standards, or work practices. Each permit shall specify:

6.3.5.1 The frequency (which shall be annually unless the applicable requirement or the Department specifies submission more frequently) of submissions of compliance certifications;

6.3.5.2 In accordance with 6.1.3 of this regulation, a means for monitoring the compliance of the source with emissions limitations, standards, and work practices contained in applicable requirements;

6.3.5.3 A requirement that the compliance certification include the following:

6.3.5.3.1 The identification of each term or condition of the permit that is the basis of the certification;

6.3.5.3.2 The permittee's current compliance status, as shown by monitoring data and other information reasonably available to the permittee;

6.3.5.3.3 Whether compliance was continuous or intermittent;

6.3.5.3.4 The method or methods used for determining the compliance status of the source, currently and over the reporting period as required by 6.1.3 of this regulation; and

6.3.5.3.5 Such other facts as the Department may require to determine the compliance status of the source;

6.3.5.4 A requirement that all compliance certifications be submitted to EPA as well as to the Department;

6.3.5.5 Such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act; and

6.3.5.6 Such other provisions as the Department may require.

6.4 Source Category Permits

6.4.1 The Department may establish source categories that it concludes are appropriate for source category permits, and any source may petition the Department to establish a source category. The Department may identify a category of sources if it finds that:

6.4.1.1 There are several permittees, permit applicants or potential permit applicants who have the same or substantially similar operations, emissions, activities or facilities;

6.4.1.2 The permittees, permit applicants or potential permit applicants emit the same types of regulated air pollutants;

6.4.1.3 The operations, emissions, activities or facilities are subject to the same or similar standards, limitations and operating requirements; and

6.4.1.4 The operations, emissions, activities or facilities are subject to the same or similar monitoring requirements.

6.4.2 Source Category Permits may be issued for the following purposes:

6.4.2.1 To establish terms and conditions to implement applicable requirements for a source category;

6.4.2.2 To establish terms and conditions to implement applicable requirements for specified categories of changes to permitted sources; and

6.4.2.3 To establish federally-enforceable caps on emissions from sources in the specified category.

6.4.3 No source category permit may be issued for affected sources under the acid rain program unless otherwise provided in regulations promulgated under Title IV of the Act.

6.4.4 For each source category identified, the Department may, after public notice and hearing conducted in accordance with the procedures specified in 7.10 of this regulation, adopt source category requirements including, but not limited to, emission limitations and standards, monitoring and related recordkeeping and reporting requirements, and fees, and criteria by which sources may qualify for source category permits.

6.4.5 After a source category has been established, any qualifying source may submit a source category application.

6.4.5.1 A source category application shall identify the source and provide information sufficient to demonstrate that it falls within the identified source category, together with any additional information that may be specified by the Department;

6.4.5.2 The Department shall act to approve or deny the application within 120 days of receipt; and

6.4.5.3 A final action approving or denying a source category application shall be subject to judicial review.

6.4.6 A source category permit issued under 6.0 of this regulation may provide that the source shall be entitled to the protection of the permit shield for all operations, activities and emissions addressed by the source category permit unless and to the extent that it is subsequently determined that the source does not qualify for the terms and conditions of the source category permit.

6.4.7 If some but not all of a source's operations, activities and emissions are eligible for coverage under one or more source categories, the source may apply for and receive coverage under the source category permits for the operations, activities and emissions that are so eligible. If the source is required under 3.0 of this regulation to obtain a permit addressing the remainder of its operations, activities and emissions, it may apply for and receive a permit that addresses specifically only those items not covered by the source category permits. In such a case, the source's permit shall identify all operations, activities and emissions that are subject to source category permits and incorporate those source category permits by reference. Unless the permit specifically states otherwise, the terms and conditions of any source category permits incorporated by reference shall apply.

6.5 Temporary Sources. The Department may issue a single permit authorizing emissions from similar operations by the same source owner or operator at multiple temporary locations. The operation must be temporary and involve at least one change of location during the term of the permit. No affected source shall be permitted as a temporary source. Permits for temporary sources shall include the following:

6.5.1 Conditions that will assure compliance with all applicable requirements at all authorized locations;

6.5.2 Requirements that the owner or operator notify the permitting authority at least 45 days in advance of each change in location;

6.5.3 The proposed change in location shall be subject to public comment and judicial review; and

6.5.4 Conditions that assure compliance with all other provisions of 6.0 of this regulation.

6.6 Permit Shield

6.6.1 Except as provided in this regulation, a source may request that the Department include in the Part 70 permit a provision stating that compliance with the terms and conditions of the permit shall

constitute compliance with any applicable requirement specifically identified in the permit as of the day of permit issuance.

6.6.2 The Department may deny, in whole or in part, a permit shield requested pursuant to 6.6.1 of this regulation. Should the Department make such a denial, it shall identify the portion or portions of the permit to receive the permit shield and the portion or portions denied the permit shield, and shall set-forth the basis for denial.

6.6.3 A Part 70 permit that does not expressly provide a permit shield shall be presumed not to provide such a shield.

6.6.4 Nothing in 6.6 of this regulation shall in any way limit or affect the following:

6.6.4.1 The provisions of section 303 (Emergency Orders) of the Act, including the authority of the Administrator under that section; or

6.6.4.2 The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;

6.6.4.3 The applicable requirements of the acid rain program, consistent with section 408(a) of the Act; or

6.6.4.4 The ability of EPA to obtain information from a source pursuant to section 114 of the Act.

6.7 Emergencies or Malfunctions

6.7.1 Definitions

"Emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency.

"Malfunction" means any sudden and unavoidable failure of air pollution control equipment or process equipment or of a process to operate in a normal or usual manner, and that causes the source to exceed a technology based emission limitation under the permit, due to unavoidable increases in emissions attributable to the malfunction. An emergency or malfunction shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

6.7.2 Effect of an emergency or malfunction. An emergency or malfunction constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions of 6.7.3 of this regulation are met.

6.7.3 The affirmative defense of emergency or malfunction shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

6.7.3.1 An emergency or malfunction occurred and that the permittee can identify the cause or causes of the emergency or malfunction;

6.7.3.2 The permitted facility was at the time being operated in a prudent and professional manner and in compliance with generally accepted industry operations and maintenance procedures;

6.7.3.3 During the period of the emergency or malfunction the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and

6.7.3.4 The permittee submitted notice of the emergency or malfunction to the Department within two working days of the time when emission limitations were exceeded due to the emergency or malfunction. Such notice must contain a description of the emergency or malfunction, any steps taken to mitigate emissions, and corrective actions taken.

6.7.4 In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency or malfunction has the burden of proof.

6.7.5 The provision of 6.7 of this regulation is in addition to any emergency or malfunction provision contained in any applicable requirement.

6.8 Operational Flexibility. Each permit issued under this regulation shall provide that a permitted facility is expressly authorized to make a section 502(b)(10) (of the Act) change within the facility without a permit revision, if the change is not a modification under any provision of Title I of the Act or the State Implementation Plan (SIP), does not involve a change in compliance schedule dates, and the change does not result in a level of emissions exceeding the emissions allowable under the permit, whether expressed therein as a rate of emissions or in terms of total emissions.

6.8.1 Before making a change under this provision, the permittee shall provide advance written notice to the Department and to EPA, describing the change to be made, the date on which the change will occur, any changes in emissions, and any permit terms and conditions that are affected, including any new applicable requirements. The permittee shall thereafter maintain a copy of the notice with the permit. The written notice shall be provided to EPA and the Department at least seven calendar days before the change is to be made, except that this period may be shortened or eliminated as necessary for a change that must be implemented more quickly to address unanticipated conditions posing a significant health, safety, or environmental hazard. If less than seven calendar days notice is provided because of a need to respond more quickly to such unanticipated conditions, the permittee shall provide notice to EPA and the Department as soon as possible after learning of the need to make the change, together with the reason or reasons why advance notice could not be given.

6.8.2 The permit shield provided under 6.6 of this regulation shall not apply to changes made under 6.0 of this regulation.

6.8.3 Upon the request of a permit applicant, the Department shall issue a permit that contains terms and conditions allowing for the trading of emissions increases and decreases in the permitted facility solely for the purpose of complying with a federally-enforceable emissions cap that is established in the permit independent of otherwise applicable requirements. The permit applicant shall include in its application proposed replicable procedures and permit terms that assure that the emissions trades are quantifiable and enforceable and comply with all applicable requirements and 6.1 and 6.3 of this regulation. Under 6.8.3 of this regulation, the written notification required above shall state when the change will occur and shall describe the changes in emissions that will result and how these increases and decreases in emissions will comply with the terms and conditions of the permit.

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7.0 Permit Issuance, Renewal, Reopenings, And Revisions

7.1 Action on Application

7.1.1 A permit, permit modification, or renewal may be issued only if all of the following conditions have been met:

7.1.1.1 The Department has received a complete application for a permit, permit modification, or permit renewal;

7.1.1.2 The Department has complied with the requirements for public participation under 7.10 of this regulation;

7.1.1.3 The Department has complied with the requirements for notifying and responding to affected states under 8.1 of this regulation;

7.1.1.4 The Department finds that the conditions of the permit provide for compliance with all applicable requirements and the requirements of this regulation; and

7.1.1.5 EPA has received a copy of the proposed permit and any notices required under 8.2 of this regulation, and has not objected to issuance of the permit under 40 CFR, section 70.8(c) within the time specified therein.

7.1.2 Following review of an application submitted in accordance with this regulation, the Department shall either deny the application and state the reasons for doing so, or issue for public notice a draft permit, permit modification, or renewal in accordance with 7.10 of this regulation. The draft shall be accompanied by a statement that sets forth the legal and factual basis for the draft permit conditions (including references to the applicable statutory or regulatory provisions). The Department shall send this statement to EPA, to affected states, to any person who requests it, and to the applicant.

7.1.3 Following completion of the public notice period, if no hearing is held, the Department shall either deny the application and state the reasons for doing so, or prepare and submit to EPA a proposed permit, permit modification, or renewal. If a public hearing is held, the Secretary of the Department shall issue an Order in accordance with 7 Del.C. Ch 60, §6006, either denying the application and stating the reasons for doing so, or prepare and submit to EPA a proposed permit, permit modification, or renewal.

7.1.4 Action Following EPA Review

7.1.4.1 Upon receipt of notice from EPA that it will not object to a proposed permit, permit modification, or permit renewal that has been submitted for EPA review pursuant to 7.0 of this regulation, the Department shall issue the permit, permit modification, or permit renewal forthwith.

7.4.1.2 Upon the passage of 45 days after submission of a proposed or revised proposed permit, permit modification, or permit renewal for EPA review and, if EPA has not notified the Department that it objects to the proposed permit action, the Department shall issue the permit, permit modification, or renewal forthwith.

7.1.4.3 If EPA objects to the proposed permit, the Department shall not issue the permit as proposed, but shall consult with EPA, and the applicant and shall submit a revised proposed permit to EPA, unless the Department's decision is to deny the permit.

7.1.5 Except as provided in 7.1.5.1 or 7.1.5.2 of this regulation, the Department shall take final action on each application for a permit within 18 months after receiving a complete application. Final action on each application for a permit modification shall be taken within 12 months after receipt of a complete application. Final action on each application for a permit renewal shall be taken within one year after receipt of a complete application. For each such application, the Department shall either deny the application or submit a proposed permit, modification or renewal to EPA.

7.1.5.1 The Department shall take final action on at least one third of all initial permit applications (as defined in 5.1.1.1 of this regulation) annually during the first three years following final approval of the State program by EPA.

7.1.5.2 The Department shall take action on any permit, permit modification, or renewal issued in compliance with regulations promulgated under Title IV or V of the Act for the permitting of affected sources under the acid rain program within the time specified in those regulations.

7.1.6 To the extent feasible, applications shall be acted upon in the order received, except that:

7.1.6.1 Priority shall be given to taking final action on applications for construction or modification under Title I, Parts C and D of the Act.

7.1.6.2 For processing purposes, the Department may group together applications addressing any group of similar sources.

7.1.6.3 The Department may give expedited treatment to simple applications that do not require significant review (e.g., permits incorporating few or no substantive regulatory requirements).

7.1.6.4 A source may submit a request for expedited processing of any application submitted under this regulation. Any such request shall include a statement of reasons and shall identify the date by which final action is requested, taking into account the time, if any, required for public and affected state comment and EPA review. In reviewing such a request, the Department shall consider, among other relevant factors, the reasons for expedited treatment stated by the applicant, the complexity of the permit action at issue, and the availability of Department staff and resources. The Department shall inform the applicant within 60 days of receipt of a request for expedited treatment whether that request has been granted, granted in part, or denied. A decision regarding expedited processing shall not be subject to review.

7.1.6.5 The Department may give expedited treatment to an application if the source certifies that early approval of the application is required to enable it to comply with applicable requirements. In submitting a certification requesting expedited treatment, the source shall explain why early approval is required for compliance with applicable requirements and identify the date by which final approval is requested.

7.2 Requirement for a Permit. Except as provided in 7.2.1 and 7.2.2 of this regulation, no covered source may operate after the time that it is required to submit a timely and complete application under an approved permit program, except in compliance with a permit issued under this regulation.

7.2.1 If a covered source submits a timely and complete application for permit issuance or renewal, that source's failure to have a permit shall not be a violation of the requirement to have such a permit until the Department takes final action on the application. This protection shall cease to apply if, subsequent to the completeness determination made pursuant to 5.1.2 of this regulation, the applicant fails to submit by the deadline specified in writing by the Department any additional information identified as being reasonably required to process the application.

7.2.2 If a covered source files a timely application that the Department determines to be incomplete, the source's failure to have a permit may be deemed a violation of this regulation until such time as the deficiency is cured.

7.2.3 The submittal of a complete application shall not affect the requirement that any source have a preconstruction permit under Title I of the Act.

7.3 Permit Renewal and Expiration

7.3.1 Applications for permit renewal shall be subject to the same procedural requirements, including those for public participation, affected state comment, and EPA review, that apply to initial permit issuance under 7.1 of this regulation, except that an application for permit renewal may address only those portions of the permit that the Department determines require revision, supplementing, or deletion, incorporating the remaining permit terms by reference from the previous permit. The Department may similarly, in issuing a draft renewal permit or proposed renewal permit, specify only those portions that will be revised, supplemented, or deleted, incorporating the remaining permit terms by reference.

7.3.2 A source's right to operate shall terminate upon the expiration of its permit, unless a timely and complete renewal application has been submitted at least six months before the date of expiration or such earlier date as the Department may specify in the permit.

7.3.3 If a timely and complete application for a permit renewal is submitted, but the Department fails to take final action to issue or deny the renewal permit before the end of the term of the previous permit, then the permit shall not expire until the renewal permit has been issued or denied, and any permit shield granted for the permit shall continue in effect during that time.

7.4 Administrative Permit Amendments

7.4.1 An "administrative permit amendment" is a permit revision that:

7.4.1.1 Corrects typographical errors;

7.4.1.2 Identifies a change in the name, address, or phone number of any person identified in the permit, or provides a similar minor administrative change at the source;

7.4.1.3 Requires more frequent monitoring or reporting by the permittee;

7.4.1.4 Allows for a change in ownership or operational control of a source where the Department determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee has been submitted to the Department;

7.4.1.5 Incorporates into the permit the requirements from preconstruction review permits issued by the Department under 7 DE Admin. Code 1102 or 7 DE Admin. Code 1125, when such permits were issued meeting the requirements of 11.2.10, 11.5, 12.4, 12.5 and 12.6 of 7 DE Admin. Code 1102.

7.4.2 Administrative permit amendments for purposes of the acid rain portion of the permit shall be governed by regulations promulgated under Title IV of the Act.

7.4.3 Administrative Permit Amendment Procedures. An administrative permit amendment shall be made by the Department in accord with the following:

7.4.3.1 The Department shall take final action on a request for an administrative permit amendment within 60 days from the date of receipt of such a request, and may incorporate the proposed changes without providing notice to the public or affected states provided that it designates any such permit revisions as having been made pursuant to 7.4 of this regulation.

7.4.3.2 The Department shall submit a copy of the revised permit to the Administrator.

7.4.3.3 The source may implement the changes addressed in the request for an administrative amendment immediately upon submittal of the request.

7.4.4 The Department may, upon taking final action granting a request for an administrative permit amendment, allow coverage by the permit shield in 6.6 of this regulation for administrative permit amendments made pursuant to 7.4.1.5 of this regulation.

7.5 Permit Modification. A permit modification is any revision to an operating permit that cannot be accomplished under the program's provisions for administrative permit amendments under 7.4 of this regulation. A permit modification for purposes of the acid rain portion of the permit shall be governed by regulations promulgated under Title IV of the Act.

7.5.1 Minor Permit Modification Procedures

7.5.1.1 Criteria.

7.5.1.1.1 Minor permit modification procedures may be used only for those permit modifications that:

7.5.1.1.1.1 Do not violate any applicable requirement;

7.5.1.1.1.2 Do not involve significant changes to existing monitoring, reporting or recordkeeping requirements in the permit;

7.5.1.1.1.3 Do not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis;

7.5.1.1.1.4 Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject, or do not seek to establish or change compliance schedule dates. Such terms and conditions include:

7.5.1.1.1.4.1 A federally-enforceable emissions cap assumed to avoid classification as a modification under any provision of Title I of the Act; and

7.5.1.1.1.4.2 An alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Act;

7.5.1.1.1.5 Are not modifications under any provision of Title I of the Act; and

7.5.1.1.1.6 Are not required by this regulation to be processed as a significant modification.

7.5.1.1.2 Notwithstanding 7.5.2.1.1 and 7.5.3.1 of this regulation, minor permit modification procedures may be used for permit modifications involving the use of economic incentives, marketable permits, emissions trading, and other similar approaches, to the extent that such minor permit modification procedures are explicitly provided for in the Delaware State Implementation Plan, or in applicable requirements promulgated by EPA.

7.5.1.2 Application. To use the minor permit modification procedures, a source shall submit an application requesting such use which shall meet the basic permit application requirements under this regulation and shall include the following:

7.5.1.2.1 A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;

7.5.1.2.2 The source's suggested draft permit;

7.5.1.2.3 Certification by a responsible official, consistent with 5.6 of this regulation, that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used; and

7.5.1.2.4 Completed forms for the Department to use to notify EPA and affected states as required under 8.0 of this regulation.

7.5.1.3 EPA and Affected State Notification. Within five working days of receipt of a minor permit modification application, the Department shall notify EPA and affected states of the requested permit modification. The Department shall promptly send any notice required under 8.1.2 of this regulation to EPA.

7.5.1.4 Timetable for Issuance. The Department will not issue a final permit modification until after EPA's 45-day review period or until EPA has notified the Department that EPA will not object to issuance of the permit modification, whichever occurs first, although the Department can approve the permit modification prior to that time. Within 90 days of the Department's receipt of an application under

the minor permit modification procedures or 15 days after the end of EPA's 45-day review period under 8.2 of this regulation, whichever is later, the Department shall:

7.5.1.4.1 Issue the permit modification as proposed;

7.5.1.4.2 Deny the permit modification application;

7.5.1.4.3 Determine that the requested modification does not meet the minor permit modification criteria and should be reviewed under the significant modification procedures; or

7.5.1.4.4 Revise the draft permit modification and transmit to EPA the new proposed permit modification as required by 40 CFR Part 70.8(a).

7.5.1.5 Source's Ability to Make Change. Immediately after filing an application meeting the requirements of these minor permit modification procedures, the source is authorized to make the change or changes proposed in the application. After the source makes the change allowed by the preceding sentence, and until the Department takes any of the actions specified in 7.5.1.4.1 through 7.5.1.4.4 of this regulation, the source must comply with both the applicable requirements governing the change and the proposed permit terms and conditions. During this period, the source need not comply with the existing terms and conditions it seeks to modify; however, if the source fails to comply with its proposed permit terms and conditions during this time period, the existing permit terms and conditions may be enforced against it.

7.5.1.6 Permit Shield. The permit shield under 6.6 of this regulation shall not extend to minor permit modifications.

7.5.1.7 Public Notice. The provisions of 7.10 of this regulation shall apply to minor permit modifications.

7.5.2 Group Processing of Minor Permit Modifications

Pursuant to 7.5.2 of this regulation, the Department may modify the procedure outlined in 7.5.1 of this regulation to process groups of a source's applications for certain modifications eligible for minor permit modification processing.

7.5.2.1 Criteria. Group processing of modifications may be used only for those permit modifications:

7.5.2.1.1 That meet the criteria for minor permit modification procedures under 7.5.1.1.1 of this regulation; and

7.5.2.1.2 That collectively are below the following threshold level: 10% of the emissions allowable under the permit for the emissions unit for which the change is requested, 20% of the applicable definition of major source, or five tons per year, whichever is least.

7.5.2.2 Application. An application requesting the use of group processing procedures shall meet the requirements of 5.4 of this regulation and shall include the following:

7.5.2.2.1 A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs.

7.5.2.2.2 The source's suggested draft permit.

7.5.2.2.3 Certification by a responsible official, consistent with 5.6 of this regulation, that the proposed modification meets the criteria for use of group processing procedures and a request that such procedures be used.

7.5.2.2.4 A list of the source's other pending applications awaiting group processing, and a determination of whether the requested modification, aggregated with these other applications, equals or exceeds the threshold set under 7.5.2.1.2 of this regulation.

7.5.2.2.5 Certification, consistent with 5.6 of this regulation, that the source has notified EPA of the proposed modification. Such notification need only contain a brief description of the requested modification.

7.5.2.2.6 Completed forms for the Department to use to notify the Administrator and affected states as required under 8.0 of this regulation.

7.5.2.3 EPA and Affected State Notification. On a quarterly basis or within five business days of receipt of an application demonstrating that the aggregate of a source's pending applications equals or exceeds the threshold level set under 7.5.2.1.2 of this regulation, whichever is earlier, the

Department promptly shall notify the Administrator and affected states of the requested permit modifications. The Department shall send any notice required under 8.1.2 of this regulation to the Administrator.

7.5.2.4 Timetable for Issuance. The provisions of 7.5.1.4 of this regulation shall apply to modifications eligible for group processing, except that the Department shall take one of the actions specified in 7.5.1.4.1 through 7.5.1.4.4 of this regulation within 180 days of receipt of the application or 15 days after the end of the Administrator's 45-day review period under 8.2 of this regulation, whichever is later.

7.5.2.5 Source's Ability to Make Change. The provisions of 7.5.1.5 of this regulation shall apply to modifications eligible for group processing.

7.5.2.6 Permit Shield. The permit shield under 6.6 of this regulation shall not extend to modifications eligible for group processing.

7.5.2.7 Public Notice. The provisions of 7.10 of this regulation shall apply to modifications eligible for group processing.

7.5.3 Significant Modification Procedures

7.5.3.1 Criteria. Significant modification procedures shall be used for applications requesting permit modifications that do not qualify as minor permit modifications or administrative amendments, or that:

7.5.3.1.1 Involve a significant change in existing monitoring permit terms or conditions, or constitute a relaxation of reporting or recordkeeping permit terms or conditions;

7.5.3.1.2 Require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis;

7.5.3.1.3 Seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include, but are not limited to:

7.5.3.1.3.1 A federally enforceable emissions cap assumed to avoid classification as a modification under any provision of Title I;

7.5.3.1.3.2 An alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Act; and

7.5.3.1.4 Are modifications under any provision of Title I of the Act, except those that qualify for processing as administrative permit amendments under 7.4 of this regulation.

7.5.3.2 Nothing herein shall be construed to preclude the permittee from making changes consistent with this regulation that would render existing permit compliance terms and conditions irrelevant.

7.5.3.3 Procedures for processing. Significant permit modifications shall meet all requirements of this regulation that are applicable to permit issuance and renewal, including those for applications, public participation, review by affected states, and review by EPA. The application for the modification shall describe the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs. The Department shall complete review on the majority of significant permit modifications within nine months after receipt of a complete application.

7.6 Reopening for Cause

7.6.1 A permit shall be reopened for cause if:

7.6.1.1 The Department or EPA determines that the permit contains a material mistake or that the emissions standards or other terms of the permit were based on inaccurate information;

7.6.1.2 Additional applicable requirements under the Act become applicable to the source if:

7.6.1.2.1 The source is a major source;

7.6.1.2.2 The permit has a remaining term of more than three years; or

7.6.1.2.3 The effective date of the requirement is earlier than the date on which the permit is due to expire. However, if the original permit or any of its terms and conditions has been extended pursuant to 7.3.3 of this regulation, the Department may require the source to revise the permit renewal application to incorporate additional applicable requirements.

7.6.1.3 The source is an affected source under the acid rain program and additional requirements (including excess emissions requirements) become applicable to that source. Upon approval by EPA excess emissions offset plans shall be deemed to be incorporated into the permit; or

7.6.1.4 The Department or EPA determines that the permit must be revised to assure compliance by the source with applicable requirements.

7.6.2 If the Department finds reason to believe that a permit should be reopened for cause, it shall provide at least 30 days prior written notice to that effect to the source, except the notice period can be shorter if the Department finds that an emergency exists.

7.6.2.1 Such notice shall include a statement of the terms and conditions that the Department proposes to change, delete, or add to the permit. If the Department does not have sufficient information to determine the terms and conditions that must be changed, deleted, or added to the permit, the notice shall request the source to provide that information within a period of time specified in the notice, which shall be not less than 30 days except in the case of an emergency.

7.6.2.2 The Department shall give the source an opportunity to provide evidence that the permit should not be reopened.

7.6.3 In reissuing the permit, the Department shall follow the procedures established under 7.1 and 7.10 of this regulation. The source shall in all cases be afforded an opportunity to comment on the revised permit terms.

7.6.4 Any reopening under 7.6.1.2 of this regulation shall be completed within 18 months after promulgation of the applicable requirements.

7.7 Reopening for Cause by EPA

7.7.1 If the Department receives a notice from EPA that the Administrator has found that cause exists to terminate, modify, or revoke and reissue a permit, the Department shall, within 14 days after receipt of such notification, provide notice to the source. The notice to the source shall include a copy of the notice from EPA and invite the source to comment in writing on the proposed action or request a hearing.

7.7.2 Within 90 days following receipt of the notification from EPA, the Department shall issue and forward to EPA a proposed determination of termination, modification or revocation and reissuance, as appropriate. The Department may request additional time, up to 90 days, for this submission pursuant to EPA's Part 70 regulations if such time is required to obtain a new or revised permit application or other information from the source.

7.7.3 The EPA will review the proposed determination from the Department within 90 days of receipt.

7.7.4 The Department shall have 90 days from receipt of an EPA objection to resolve any objection that EPA makes and to terminate, modify or revoke and reissue the permit in accordance with the Administrator's objection.

7.7.5 If the Department fails to submit a proposed determination pursuant to 7.7.2 of this regulation, or fails to resolve any objection pursuant to 7.7.4 of this regulation, the Administrator will terminate, modify or revoke and reissue the permit after taking the following actions:

7.7.5.1 Providing at least 30 days' notice to the permittee, in writing, of the reasons for any such action. This notice may be given during the procedures in 7.7.1 through 7.7.4 of this regulation; and

7.7.5.2 Providing the permittee an opportunity for comment on the Administrator's proposed action, and an opportunity for a hearing.

7.8 Revocations and Terminations

7.8.1 The Department may revoke a permit upon the request of the permittee or for cause. Cause for revocation includes, but is not limited to:

7.8.1.1 A pattern of unresolved noncompliance at the permitted facility with the terms and conditions of the permit and the permittee has refused to undertake appropriate action (such as a schedule of compliance) to resolve the noncompliance;

7.8.1.2 The permittee has failed to disclose material facts relevant to issuance of the permit or has submitted false or misleading information to the Department;

7.8.1.3 The Department finds that the permitted facility or activity substantially endangers public health, safety, or the environment, and that the danger cannot be removed by a modification of the terms of the permit;

7.8.1.4 The permittee has failed to pay permit fees as established from time to time by the Delaware General Assembly; or

7.8.1.5 The permittee has failed to pay a civil or criminal penalty imposed for violations of the permit.

7.8.2 Upon finding that cause exists for revocation of a permit, the Department shall notify the permittee of that finding in writing, stating the reasons for the proposed revocation. Within 30 days following receipt of that notice, the permittee may submit written comments concerning the proposed revocation and may request a hearing. If the Department thereafter makes a final determination to revoke the permit, it shall provide a written notice to the permittee specifying the reasons for the decision and the effective date of the revocation.

7.8.3 A revocation issued under 7.0 of this regulation may be issued conditionally with a future effective date and may specify that the revocation will not take effect if the permittee satisfies the specified conditions before the effective date.

7.8.4 A permittee may at any time apply for termination of all or a portion of its permit relating solely to operations, activities, and emissions that have been permanently discontinued at the permitted facility. An application for termination shall identify with specificity the permit or permit terms that relate to the discontinued operations, activities, and emissions. The Department shall act on an application for termination on this ground within 90 days of receipt and shall grant the application for termination upon finding that the permit terms for which termination is sought relate solely to operations, activities, and emissions that have been permanently discontinued. In terminating all or portions of a permit pursuant to 7.8 of this regulation, the Department may make appropriate orders for the submission of a final report or other information from the source to verify the complete discontinuation of the relevant operations, activities, and emissions.

7.8.5 A source may apply for termination of its permit on the ground that its operations, activities, and emissions are fully covered by a source category permit for which it has applied and received pursuant to 6.4 of this regulation. The Department shall act on an application for termination on this ground within 90 days of receipt and shall grant the application upon a finding that the source's operations, activities, and emissions are fully covered by a source category permit.

7.8.6 A source that has received a final revocation or termination of its permit may apply for a new permit under the procedures established in 5.0 of this regulation.

7.9 Case-by-Case Determinations. If applicable requirements require the Department to make a case-by-case determination of an emission standard, technology requirement, work practice standard, or other requirement for a source and to include terms and conditions implementing that determination in the source's permit, the source shall include in its permit application under 5.0 of this regulation a proposed determination, together with the data and other information upon which the determination is to be based and proposed terms and conditions to implement the determination. Upon receipt of a request from the source, the Department shall meet with the source before the permit application is submitted to discuss the determination and the information required to make it. In the event that the Department determines that the source's proposed determination and implementing terms and conditions should be revised in the draft permit, the proposed permit, or the final permit, the Department shall in all cases inform the source of the changes to be made and allow the source to comment on those changes before issuing the draft permit, proposed permit, or final permit.

7.10 Public participation. All permit proceedings, including initial permit issuance, permit modifications, and renewals, shall be conducted in accordance with the procedures for public participation specified below.

7.10.1 After receipt of an application for a permit, permit modification, or permit renewal, and no later than 61 days before the deadline under 7.1.5 of this regulation for issuance of a proposed permit, modification, or renewal for EPA review, the Department shall issue a draft permit and solicit comment from the applicant, affected states, and the public as follows:

7.10.1.1 The Department shall provide notice to the public in accordance with 7 Del.C. Ch 60, §6004, by:

7.10.1.1.1 Making available in at least one location in the area in which the facility is located a public file containing copy of all materials that the applicant has submitted (other than those granted confidential treatment under 5.1.4 of this regulation), a copy of the preliminary determination and draft permit or permit renewal, and a copy or summary of other materials, if any, considered in making the preliminary determination; or

7.10.1.1.2 Publishing a public notice in accordance with 7 Del.C. Ch 60, §6004, which requires a minimum 15-day public comment period.

7.10.1.2 Copies of the notice required under 7.10.1.1 of this regulation shall be sent to the representatives of affected states designated by those states to receive such notices.

7.10.1.3 Copies shall also be sent by mail to any person who has requested such notification from the Department by providing the name and mailing address.

7.10.2 The public notice shall establish a period of not less than 30 days in accordance with 40 CFR Part 70.7(h) following publication of the notice for the submission of written comments and hearing requests, and shall identify the affected facility, the name and address of the applicant or permittee, the name, address and telephone number of a Department representative with responsibility for the permitting action, the activity or activities involved in the permit action, the emissions change involved in any permit modification, the time and place of the hearing or a statement of procedures to request a hearing, and the location of the public file.

7.10.3 The Department shall hold a hearing on the draft permit or permit renewal if the Secretary receives a meritorious request for a hearing within a reasonable time, as stated in the advertisement. A public hearing may be held on any application if the Secretary deems it to be in the best interest of the State to do so. A public hearing request shall be deemed meritorious if it exhibits a familiarity with the application and a reasoned statement of the permit's probable impact.

7.10.4 Any public hearing held under 7.0 of this regulation shall be held no earlier than the 31st day following publication of a public notice that a public hearing will be held, and of the time and place that hearing will be held.

7.10.5 The Department may limit participation at the public hearing to issues raised in written comments submitted during the public comment period. The officer conducting the hearing may, as appropriate, impose additional limitations, including time restrictions.

7.10.6 The applicant shall be afforded an opportunity to submit, within 15 days following the close of the public comment period or the public hearing, whichever is later, a response to any comments made.

7.10.7 The Department shall consider all comments submitted by the applicant, the public, and affected states in reaching its final determination and issuing the proposed permit, modification, or renewal for EPA review. The Department shall maintain a list of all commenters and a summary of the issues raised and shall make that information available in the public file and supply it to EPA upon request.

7.10.8 At the time it issues a proposed permit, modification, or renewal for EPA review, the Department shall issue a written response to all comments submitted by affected states and all significant comments submitted by the applicant and the public.

7.10.9 The initial establishment of a source category shall follow the procedures detailed in 7.10.1 through 7.10.8 of this regulation. Once a source category has been established, however, the public notice requirement for each subsequent source category permit application from a qualifying source shall be in accordance with 7 Del.C. Ch 60, §6004.

7.11 Judicial Review. Judicial review shall be in accordance with 7 Del.C. Ch 60, §6008 and §6009. The deadlines established in 7.0 of this regulation shall not apply in the event of judicial review. Failure of

the Department to take timely action under 7.1.5, 7.4.3, 7.5.1.4, 7.5.2.4 and 7.5.3.3 of this regulation shall constitute final agency action, and be subject to judicial review.

11/15/1993

8.0 Permit Review by EPA and Affected States

8.1 Review by Affected States

8.1.1 The Department shall give notice of each draft permit to all affected states on or before the time that the Department provides this notice to the public under 7.10 of this regulation, except to the extent 7.5.1 or 7.5.2 of this regulation requires the timing of the notice to be different.

8.1.2 As part of the Department's submittal of a proposed permit to the Administrator (or as soon as possible after the submittal for minor permit modification procedures under 7.5.1 or 7.5.2 of this regulation), the Department shall notify the Administrator and any affected state in writing of any refusal by the Department to accept all recommendations for the proposed permit that the affected state submitted during the public or affected state review period. The notice will include the Department's reasons for not accepting any such recommendation. The Department is not required to accept recommendations that are not based on applicable requirements or the requirements of this regulation.

8.1.3 The Department shall follow the procedures detailed 8.1.1 and 8.1.2 of this regulation, for the initial establishment of a source category. Upon acceptance of the initial draft source category by the Administrator and all affected states, subsequent source category permits may be issued to qualifying source or sources without further EPA or affected state review.

8.2 EPA Objection

8.2.1 No permit for which an application must be transmitted to the Administrator shall be issued, if the Administrator objects to its issuance in writing within 45 days of receipt of the proposed permit and all necessary supporting information.

8.2.2 Any EPA objection under 8.2.1 of this regulation shall include a statement of the Administrator's reasons for objection and a description of the terms and conditions that the permit must include to respond to the objections. The Administrator will provide the permit applicant a copy of the objection.

8.2.3 Failure of the Department to do any of the following also shall constitute grounds for an objection:

8.2.3.1 Comply with 8.1 of this regulation;

8.2.3.2 Submit any information necessary to review adequately the proposed permit; or

8.2.3.3 Process the permit under the procedures approved to meet 7.10 of this regulation.

8.2.4 If the Department fails, within 90 days after the date of an objection under 8.2.1 of this regulation, to revise and submit a proposed permit in response to the objection, the Administrator will issue or deny the permit in accordance with the requirements of 40 CFR Part 71 regulations.

8.3 Public Petitions to the Administrator. If the Administrator does not object in writing under 8.2 of this regulation, any person may petition the Administrator within 60 days after the expiration of the Administrator's 45-day review period to make such objection. Any such petition shall be based only on objections to the permit raised with reasonable specificity during the public comment period provided for in 7.10 of this regulation, unless the petitioner demonstrates that it was impracticable to raise such objections within such period, or unless the grounds for such objection arose after such period. If the Administrator objects to the permit as a result of a petition filed under 8.0 of this regulation, the Department shall not issue the permit until EPA's objection has been resolved, except that a petition for review does not stay the effectiveness of a permit or its requirements if the permit was issued after the end of the 45-day review period and prior to an EPA objection. If the Department has issued a permit prior to receipt of an EPA objection under 8.0 of this regulation, the Administrator will modify, terminate, or revoke such permit, and shall do so consistent with the time limits established in 40 CFR 70.7(g)(4) or 5(i) and (ii), except in emergencies, and the Department may thereafter issue only a revised permit that satisfies EPA's objection. In any case, the source will not be in violation of the requirement to have submitted a timely and complete application.

8.4 Transmission of Information to the Administrator

8.4.1 Unless the Administrator waives this requirement, the Department shall provide to the Administrator a copy of each permit application (including any application for permit modification), each proposed permit, and each final Part 70 permit. The Department may require the applicant to provide a copy of the permit application (including the compliance plan) directly to the Administrator. Upon agreement with the Administrator, the Department may submit to the Administrator a permit application summary form and any relevant portion of the permit application and compliance plan, in place of the complete permit application and compliance plan. To the extent practicable, the preceding information will be provided in computer-readable format compatible with EPA's national database management system.

8.4.2 The Department will keep for five years such records and submit to the Administrator such information as the Administrator may reasonably require to ascertain whether the State program complies with the requirements of the Act or of this regulation.

11/15/1993

9.0 Permit Fees

Covered sources shall pay fees as established from time to time by the Delaware General Assembly.

4 DE Reg. 1018 (12/01/00)

7 DE Reg. 1573 (05/01/04)

APPENDIX A: INSIGNIFICANT ACTIVITIES

Any information called-for by the permit application in 5.4 of this regulation need not be submitted for the activities and emissions levels described in this appendix; however, the source must provide a list of any such activities that are excluded because of size, emissions rate, or production rate. An application may not omit information needed to determine the applicability of, or to impose, any applicable requirement. The emissions from the activities described in this appendix shall be included when determining the applicability of any applicable requirement.

1.0 Air contaminant detector, air contaminant recorder, combustion controller or combustion shut-off.

2.0 Fuel-burning equipment which:

2.1 Uses any fuel and has a rated heat input of less than 15 million BTU per hour; or

2.2 Is an internal combustion engine which drives compressors, generators, water pumps or other auxiliary equipment during emergency or standby operations.

3.0 Air conditioning or comfort ventilating systems.

4.0 Vacuum cleaning systems used exclusively for office applications or residential housekeeping.

5.0 Ventilating or exhaust systems for print storage room cabinets.

6.0 Exhaust systems for controlling steam and heat.

7.0 Any equipment at a facility used exclusively for chemical or physical analysis or determination of product quality and commercial acceptance, provided the operation of the equipment is not an integral part of the production process and the total actual emissions from all such equipment at the facility do not exceed 204 kilograms (kg) (450 pounds [lb]) in any calendar month.

8.0 Internal combustion engines and vehicles used for transport of passengers or freight, except as may be provided in subsequent regulations.

9.0 Emission units for which an applicable requirement has not yet been promulgated, are not elsewhere listed as an insignificant activity and which have the potential to emit in the aggregate the following air contaminants at less than the specified rates:

VOC 25 tpy in New Castle or Kent Counties or 50 tpy in Sussex County;

Particulate 40 tpy;

PM_{10} 15 tpy;

SO_2 40 tpy; and

NOx 25 tpy in New Castle or Kent Counties or 100 tpy in Sussex County.

10.0 Maintenance, repair or replacement-in-kind of equipment for which a permit to operate has been issued.

11.0 Equipment which emits only elemental nitrogen, oxygen, carbon dioxide ~~and/~~or water vapor.

12.0 Ventilating or exhaust systems used in eating establishments where food is prepared for the purpose of consumption.

13.0 Equipment used to liquify or separate oxygen, nitrogen or the rare gases from the air.

14.0 Fireworks displays.

15.0 Smudge pots for orchards or small outdoor heating devices to prevent the freezing of plants.

16.0 Outdoor painting and sandblasting equipment.

17.0 Lawn mowers, tractors, farm equipment and construction equipment.

18.0 Fireplaces for the burning of wood and paper.

19.0 Any activity related to routine maintenance and repair of a facility where emissions would not be associated with a primary production process of the facility. Such activities may include:

19.1 Cleaning;

19.2 Solvent Use;

19.3 Steam Cleaning;

19.4 Painting;

19.5 Degreasing;

19.6 Washing;

19.7 Welding;

19.8 Vacuuming;

19.9 Coating;

19.10 Sweeping;

19.11 Abrasive Use; and

19.12 Insulation Removal.

20.0 Fire schools or fire fighting training.

21.0 Buildings, cabinets, and facilities used for storage of chemicals in closed containers, unless subject to applicable requirements.

22.0 Gasoline storage tanks that:

22.1 have a capacity less than 550 gallons and that are used exclusively for the fueling of implements of husbandry; or

22.2 have a capacity less than 2000 gallons and that were constructed prior to January 1, 1979; or

22.3 have a capacity less than 250 gallons and that were constructed after December 31, 1978.

23.0 Diesel and fuel oil storage tanks with a capacity of 40,000 gallons or less.

24.0 Gasoline and diesel fuel dispensing systems that never exceed a monthly throughput of 10,000 gallons.

25.0 Kilns used for firing ceramic ware if

25.1 heated exclusively by natural gas, electricity, ~~and/~~or liquid petroleum gas, and

25.2 the BTU input is less than 15 mmBTU per hour.

26.0 Inorganic acid storage tanks equipped with an emission control device.

27.0 Sewage treatment facilities.

28.0 Water treatment units.

29.0 Quiescent wastewater treatment operations.

30.0 Non-contact water cooling towers (water that has not been in direct contact with process fluids).

31.0 Laundry dryers, extractors, or tumblers used for fabrics cleaned with a water solution of bleach or detergents.

32.0 Equipment used for hydraulic or hydrostatic testing.

33.0 Blueprint copiers and photographic processes.

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APPENDIX B

40 CFR Part 60 Subpart XXX, as adopted in Section 30

Appendix B illustrates the changes made in Section 30 of 7 DE Admin. Code 1120 to 40 CFR Part 60 Subpart XXX. The underline indicates additions made to Subpart XXX and the strikeouts indicate deletions made to Subpart XXX.

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§60.760 Applicability, designation of affected source, and delegation of authority.

(a) The provisions of this subpart apply to each municipal solid waste landfill, open or closed, that commenced construction, reconstruction, or modification after July 17, 2014 or that has accepted waste after November 8, 1987 or that has additional capacity available to accept waste. ~~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.~~

(b) The following authorities are retained by the Administrator and are not transferred to the state: §60.764(a)(5).

(c) Activities required by or conducted pursuant to a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Resource Conservation and Recovery Act (RCRA), or state remedial action are not considered construction, reconstruction, or modification for purposes of this subpart.

§60.761 Definitions.

As used in this subpart, all terms not defined herein 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 area means a separately lined area of an MSW landfill in which solid waste is no longer being placed. If additional solid waste is placed in that area of the landfill, that landfill area is no longer closed. The area must be separately lined to ensure that the landfill gas does not migrate between open and closed areas.

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 §60.762(b)(2)(i).

Corrective action analysis means a description of all reasonable interim and long-term measures, if any, that are available, and an explanation of why the selected corrective action(s) is/are the best alternative(s), including, but not limited to, considerations of cost effectiveness, technical feasibility, safety, and secondary impacts.

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.

Gust means the highest instantaneous wind speed that occurs over a 3-second running average.

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). Household waste does not include fully segregated yard waste. Segregated yard waste means vegetative matter resulting exclusively from the cutting of grass, the pruning and/or removal of bushes, shrubs, and trees, the weeding of gardens, and other landscaping maintenance activities. Household waste does not include construction, renovation, or demolition wastes, even if originating from a household.

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 chapter. 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 waste. 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.

Leachate recirculation means the practice of taking the leachate collected from the landfill and reapplying it to the landfill by any of one of a variety of methods, including pre-wetting of the waste, direct discharge into the working face, spraying, infiltration ponds, vertical injection wells, horizontal gravity distribution systems, and pressure distribution systems.

Modification means an increase in the permitted volume design capacity of the landfill 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.

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 §60.764.

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.

Root cause analysis means an assessment conducted through a process of investigation to determine the primary cause, and any other contributing causes, of positive pressure at a wellhead.

Segregated yard waste means vegetative matter resulting exclusively from the cutting of grass, the pruning and/or removal of bushes, shrubs, and trees, the weeding of gardens, and other landscaping maintenance activities.

Sludge means the term sludge as defined in 40 CFR 258.2.

Solid waste means the term solid waste as defined in 40 CFR 258.2.

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.

Treated landfill gas means landfill gas processed in a treatment system as defined in this subpart.

Treatment system means a system that filters, de-waters, and compresses landfill gas for sale or beneficial use.

Untreated landfill gas means any landfill gas that is not treated landfill gas.

§60.762 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 must submit an initial design capacity report to the ~~Administrator~~ Department as provided in §60.767(a). The landfill may calculate design capacity in either megagrams or cubic meters for comparison with the exemption values. Any density conversions must be documented and submitted with the report. For purposes of 7 **DE Admin. Code** 1130, Title V State Operating Permit Program, 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 7 **DE Admin. Code** 1130, provided it is not a major source as defined in 7 **DE Admin. Code** 1130. Submittal of the initial design capacity report fulfills the requirements of this subpart except as provided for in paragraphs (a)(1) and (2) of this section.

(1) The owner or operator must submit to the ~~Administrator~~ Department an amended design capacity report, as provided for in §60.767(a)(3).

(2) When an increase in the maximum design capacity of a landfill exempted from the provisions of §60.762(b) through §60.769 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 must comply with the provisions 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, must either comply with paragraph (b)(2) of this section or calculate an NMOC emission rate for the landfill using the procedures specified in §60.764. The NMOC emission rate must be recalculated annually, except as provided in §60.767(b)(1)(ii). 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~~ 7 **DE Admin. Code** 1130. When a landfill is closed, and either never needed control or meets the conditions for control system removal specified in §60.762(b)(2)(v), a 7 **DE Admin. Code** 1130 operating permit is no longer required.

(1) If the calculated NMOC emission rate is less than 34 megagrams per year, the owner or operator must:

(i) Submit an annual NMOC emission rate emission report to the ~~Administrator~~ Department, except as provided for in §60.767(b)(1)(ii); and

(ii) Recalculate the NMOC emission rate annually using the procedures specified in §60.764(a)(1) until such time as the calculated NMOC emission rate is equal to or greater than 34 megagrams per year,

or the landfill is closed.

(A) If the calculated NMOC emission rate, upon initial calculation or annual recalculation required in paragraph (b) of this section, is equal to or greater than 34 megagrams per year, the owner or operator must either: Comply with paragraph (b)(2) of this section; calculate NMOC emissions using the next higher tier in §60.764; or conduct a surface emission monitoring demonstration using the procedures specified in §60.764(a)(6).

(B) If the landfill is permanently closed, a closure report must be submitted to the ~~Administrator~~ Department as provided for in §60.767(e).

(2) If the calculated NMOC emission rate is equal to or greater than 34 megagrams per year using Tier 1, 2, or 3 procedures, the owner or operator must either:

(i) Calculated *NMOC Emission Rate.* Submit a collection and control system design plan prepared by a professional engineer to the ~~Administrator~~ Department within 1 year as specified in §60.767(c); calculate NMOC emissions using the next higher tier in §60.764; or conduct a surface emission monitoring demonstration using the procedures specified in §60.764(a)(6). The collection and control system must meet the requirements in paragraphs (b)(2)(ii) and (iii) of this section.

(ii) *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 in accordance with paragraph (b)(2)(ii)(A) or (B) of this section, whichever is applicable. ~~within 30 months after:~~

(A) *For MSW landfills that commenced construction, reconstruction, or modification on or after July 17, 2014.* The collection and control system must be started up in accordance with paragraph (b)(2)(ii)(A)(*1*) or (*2*) of this section, whichever is applicable. ~~The first annual report in which the NMOC emission rate equals or exceeds 34 megagrams per year, unless Tier 2 or Tier 3 sampling demonstrates that the NMOC emission rate is less than 34 megagrams per year, as specified in §60.767(c)(4); or~~

(1) Within 30 months of the first annual report in which the NMOC emission rate equals or exceeds 34 megagrams per year, unless Tier 2 or Tier 3 sampling demonstrates that the NMOC emission rate is less than 34 megagrams per year, as specified in §60.767(c)(4) or

(2) Within 30 months of the most recent NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year based on Tier 2, if the Tier 4 surface emissions monitoring shows a surface methane emission concentration of 500 parts per million methane or greater as specified in §60.767(c)(4)(iii).

(B) *For all other subject MSW landfills.* As expeditiously as practicable but not later than January 8, 2018. ~~The most recent NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year based on Tier 2, if the Tier 4 surface emissions monitoring shows a surface methane emission concentration of 500 parts per million methane or greater as specified in §60.767(c)(4)(iii).~~

(C) An active collection system must:

(*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 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 5 years or more if active; or 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.

(D) A passive collection system must:

(*1*) Comply with the provisions specified in paragraphs (b)(2)(ii)(C)(*1*), (*2*), and (*3*) 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 must be installed as required under 40 CFR 258.40.

(iii) *Control system.* 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) A non-enclosed flare designed and operated in accordance with the parameters established in §60.18 except as noted in §60.764(e); or

(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 must 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 §60.764(d). The performance test is not required for boilers and process heaters with design heat input capacities equal to or greater than 44 megawatts that burn landfill gas for compliance with this subpart.

(*1*) If a boiler or process heater is used as the control device, the landfill gas stream must be introduced into the flame zone.

(*2*) The control device must be operated within the parameter ranges established during the initial or most recent performance test. The operating parameters to be monitored are specified in §60.766;

(C) Route the collected gas to a treatment system that processes the collected gas for subsequent sale or beneficial use such as fuel for combustion, production of vehicle fuel, production of high-Btu gas for pipeline injection, or use as a raw material in a chemical manufacturing process. Venting of treated landfill gas to the ambient air is not allowed. If the treated landfill gas cannot be routed for subsequent sale or beneficial use, then the treated landfill gas must be controlled according to either paragraph (b)(2)(iii)(A) or (B) of this section.

(D) All emissions from any atmospheric vent from the gas treatment system are subject to the requirements of paragraph (b)(2)(iii)(A) or (B) of this section. For purposes of this subpart, atmospheric vents located on the condensate storage tank are not part of the treatment system and are exempt from the requirements of paragraph (b)(2)(iii)(A) or (B) of this section.

(iv) *Operation.* Operate the collection and control device installed to comply with this subpart in accordance with the provisions of §§60.763, 60.765 and 60.766.

(v) *Removal criteria.* The collection and control system may be capped, removed, or decommissioned if the following criteria are met:

(A) The landfill is a closed landfill (as defined in §60.761). A closure report must be submitted to the ~~Administrator~~ Department as provided in §60.767(e).

(B) The collection and control system has been in operation a minimum of 15 years or the landfill owner or operator demonstrates that the GCCS will be unable to operate for 15 years due to declining gas flow.

(C) Following the procedures specified in §60.764(b), the calculated NMOC emission rate at the landfill is less than 34 megagrams per year on three successive test dates. The test dates must 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 Clean Air Act, the owner or operator of an 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~~ 7 **DE Admin. Code** 1130, 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 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~~ 7 **DE Admin. Code** 1130, becomes subject to the requirements of ~~§70.5(a)(1)(i) or §71.5(a)(1)(i) of this chapter~~ paragraph 5.1.1 of 7 **DE Admin. Code** 1130, regardless of when the design capacity report is actually submitted, no later than:

(1) ~~November 28, 2016 for MSW landfills that commenced construction, modification, or reconstruction after July 17, 2014 but before August 29, 2016;~~ Ninety days after the date of commenced construction, modification, or reconstruction for MSW landfills that commenced construction, modification, or reconstruction on or after July 17, 2014 or

(2) ~~Niney days after the date of commenced construction, modification, or reconstruction for MSW landfills that commence construction, modification, or reconstruction after August 29, 2016~~ January 8, 2018 for all other subject MSW landfills.

(d) When an MSW landfill subject to this subpart is closed as defined in this subpart, 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.

§60.763 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 §60.762(b)(2) must:

(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 must record instances when positive pressure occurs in efforts to avoid a fire. These records must be submitted with the annual reports as provided in §60.767(g)(1);

(2) Use of a geomembrane or synthetic cover. The owner or operator must 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 must be approved by the ~~Administrator~~ Department as specified in §60.767(c);

(c) Operate each interior wellhead in the collection system with a landfill gas temperature less than 55 degrees Celsius (131 degrees Fahrenheit). The owner or operator may establish a higher operating temperature value at a particular well. A higher operating value demonstration must be submitted to the ~~Administrator~~ Department for approval and must include supporting data demonstrating that the elevated parameter neither causes fires nor significantly inhibits anaerobic decomposition by killing methanogens. The demonstration must satisfy both criteria in order to be approved (*i.e.,* neither causing fires nor killing methanogens is acceptable).

(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 must conduct surface testing using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in §60.765(d). The owner or operator must conduct surface testing around the perimeter of the collection area and along a pattern that traverses the landfill at no more than 30-meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover and all cover penetrations. Thus, the owner or operator must monitor any openings that are within an area of the landfill where waste has been placed and a gas collection system is required. The owner or operator may establish an alternative traversing pattern that ensures equivalent coverage. A surface monitoring design plan must 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 §60.762(b)(2)(iii). In the event the collection or control system is not operating, the gas mover system must be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere must be closed within 1 hour of the collection or control system not operating; and

(f) Operate the control 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 must be taken as specified in §60.765(a)(3) and (5) or §60.765(c). If

corrective actions are taken, as specified in §60.765, the monitored exceedance is not a violation of the operational requirements in this section.

§60.764 Test methods and procedures.

(a)(1) *NMOC Emission Rate.* The landfill owner or operator must calculate the NMOC emission rate using either Equation 1 provided in paragraph (a)(1)(i) of this section or Equation 2 provided in paragraph (a)(1)(ii) of this section. Both Equation 1 and Equation 2 may be used if the actual year-to-year solid waste acceptance rate is known, as specified in paragraph (a)(1)(i) of this section, 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) of this section, for part of the life of the landfill. The values to be used in both Equation 1 and Equation 2 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 30-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.

(i)(A) Equation 1 must be used if the actual year-to-year solid waste acceptance rate is known.

$$M_{NMOC} = \sum_{i=1}^{n} 2\,k\,L_o M_i \left(e^{-kt_i}\right)\left(C_{NMOC}\right)\left(3.6\times10^{-9}\right) \qquad \text{(Eq. 1)}$$

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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.

(B) 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 documentation of the nature and amount of such wastes is maintained.

(ii)(A) Equation 2 must be used if the actual year-to-year solid waste acceptance rate is unknown.

$$M_{NMOC} = 2L_oR\left(e^{-kc}-e^{-kt}\right)C_{NMOC}\left(3.6\times10^{-9}\right) \qquad \text{(Eq.2)}$$

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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 = 0 and e^{-kc} = 1.

3.6×10^{-9} = Conversion factor.

(B) 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 of R, if documentation of the nature and amount of such wastes is maintained.

(2) *Tier 1.* The owner or operator must compare the calculated NMOC mass emission rate to the standard of 34 megagrams per year.

(i) If the NMOC emission rate calculated in paragraph (a)(1) of this section is less than 34 megagrams per year, then the landfill owner or operator must submit an NMOC emission rate report according to §60.767(b), and must recalculate the NMOC mass emission rate annually as required under

§60.762(b).

(ii) If the calculated NMOC emission rate as calculated in paragraph (a)(1) of this section is equal to or greater than 34 megagrams per year, then the landfill owner must either:

(A) Submit a gas collection and control system design plan within 1 year as specified in §60.767(c) and install and operate a gas collection and control system within 30 months according to §60.762(b)(2)(ii) and (iii);

(B) Determine a site-specific NMOC concentration and recalculate the NMOC emission rate using the Tier 2 procedures provided in paragraph (a)(3) of this section; or

(C) Determine a site-specific methane generation rate constant and recalculate the NMOC emission rate using the Tier 3 procedures provided in paragraph (a)(4) of this section.

(3) *Tier 2.* The landfill owner or operator must determine the site-specific NMOC concentration using the following sampling procedure. The landfill owner or operator must install at least two sample probes per hectare, evenly distributed over the 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 probes should be evenly distributed across the sample area. The sample probes should be located to avoid known areas of nondegradable solid waste. The owner or operator must 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. 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 alternative 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 more than the required number of samples are taken, all samples must be used in the analysis. The landfill owner or operator must divide the NMOC concentration from Method 25 or 25C of appendix A of this part by six to convert from C_{NMOC} as carbon to C_{NMOC} 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 as the two sampling probe per hectare requirement. For active collection systems, samples may be collected from the common header pipe. The sample location on the common header pipe must be before any gas moving, condensate removal, or treatment system equipment. For active collection systems, a minimum of three samples must be collected from the header pipe.

(i) Within 60 days after the date of completing each performance test (as defined in §60.8), the owner or operator must submit the results according to §60.767(i)(1).

(ii) The landfill owner or operator must recalculate the NMOC mass emission rate using Equation 1 or Equation 2 provided in paragraph (a)(1)(i) or (a)(1)(ii) of this section and using the average site-specific NMOC concentration from the collected samples instead of the default value provided in paragraph (a)(1) of this section.

(iii) If the resulting NMOC mass emission rate is less than 34 megagrams per year, then the owner or operator must submit a periodic estimate of NMOC emissions in an NMOC emission rate report according to §60.767(b)(1), and must recalculate the NMOC mass emission rate annually as required under §60.762(b). The site-specific NMOC concentration must be retested every 5 years using the methods specified in this section.

(iv) If the NMOC mass emission rate as calculated using the Tier 2 site-specific NMOC concentration is equal to or greater than 34 megagrams per year, the landfill owner or operator must either:

(A) Submit a gas collection and control system design plan within 1 year as specified in §60.767(c) and install and operate a gas collection and control system within 30 months according to §60.762(b)(2)(ii) and (iii);

(B) Determine a site-specific methane generation rate constant and recalculate the NMOC emission rate using the site-specific methane generation rate using the Tier 3 procedures specified in paragraph (a)(4) of this section; or

(C) Conduct a surface emission monitoring demonstration using the Tier 4 procedures specified in

paragraph (a)(6) of this section.

(4) *Tier 3.* The site-specific methane generation rate constant must be determined using the procedures provided in Method 2E of appendix A of this part. The landfill owner or operator must estimate the NMOC mass emission rate using Equation 1 or Equation 2 in paragraph (a)(1)(i) or (ii) of this section and using a site-specific methane generation rate constant, 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 must compare the resulting NMOC mass emission rate to the standard of 34 megagrams per year.

(i) If the NMOC mass emission rate as calculated using the Tier 2 site-specific NMOC concentration and Tier 3 site-specific methane generation rate is equal to or greater than 34 megagrams per year, the owner or operator must either:

(A) Submit a gas collection and control system design plan within 1 year as specified in §60.767(c) and install and operate a gas collection and control system within 30 months according to §60.762(b)(2)(ii) and (iii); or

(B) Conduct a surface emission monitoring demonstration using the Tier 4 procedures specified in paragraph (a)(6) of this section.

(ii) If the NMOC mass emission rate is less than 34 megagrams per year, then the owner or operator must recalculate the NMOC mass emission rate annually using Equation 1 or Equation 2 in paragraph (a)(1) of this section and using the site-specific Tier 2 NMOC concentration and Tier 3 methane generation rate constant and submit a periodic NMOC emission rate report as provided in §60.767(b)(1). The calculation of the methane generation rate constant is performed only once, and the value obtained from this test must be used in all subsequent annual NMOC emission rate calculations.

(5) *Other methods.* The owner or operator may use other methods to determine the NMOC concentration or a site-specific methane generation rate constant as an alternative to the methods required in paragraphs (a)(3) and (4) of this section if the method has been approved by the Administrator.

(6) *Tier 4.* The landfill owner or operator must demonstrate that surface methane emissions are below 500 parts per million. Surface emission monitoring must be conducted on a quarterly basis using the following procedures. Tier 4 is allowed only if the landfill owner or operator can demonstrate that NMOC emissions are greater than or equal to 34 Mg/yr but less than 50 Mg/yr using Tier 1 or Tier 2. If both Tier 1 and Tier 2 indicate NMOC emissions are 50 Mg/yr or greater, then Tier 4 cannot be used. In addition, the landfill must meet the criteria in paragraph (a)(6)(viii) of this section.

(i) The owner or operator must measure surface concentrations of methane along the entire perimeter of the landfill and along a pattern that traverses the landfill at no more than 30-meter intervals using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in §60.765(d).

(ii) The background concentration must be determined by moving the probe inlet upwind and downwind at least 30 meters from the waste mass boundary of the landfill.

(iii) Surface emission monitoring must be performed in accordance with section 8.3.1 of Method 21 of appendix A of this part, except that the probe inlet must be placed no more than 5 centimeters above the landfill surface; the constant measurement of distance above the surface should be based on a mechanical device such as with a wheel on a pole, except as described in paragraph (a)(6)(iii)(A) of this section.

(A) The owner or operator must use a wind barrier, similar to a funnel, when onsite average wind speed exceeds 4 miles per hour or 2 meters per second or gust exceeding 10 miles per hour. Average on-site wind speed must also be determined in an open area at 5-minute intervals using an on-site anemometer with a continuous recorder and data logger for the entire duration of the monitoring event. The wind barrier must surround the SEM monitor, and must be placed on the ground, to ensure wind turbulence is blocked. SEM cannot be conducted if average wind speed exceeds 25 miles per hour.

(B) Landfill surface areas where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover, and all cover penetrations must also be monitored using a device meeting the specifications provided in §60.765(d).

(iv) Each owner or operator seeking to comply with the Tier 4 provisions in paragraph (a)(6) of this section must maintain records of surface emission monitoring as provided in §60.768(g) and submit a Tier 4 surface emissions report as provided in §60.767(c)(4)(iii).

(v) If there is any measured concentration of methane of 500 parts per million or greater from the surface of the landfill, the owner or operator must submit a gas collection and control system design plan within 1 year of the first measured concentration of methane of 500 parts per million or greater from the surface of the landfill according to §60.767(c) and install and operate a gas collection and control system according to §60.762(b)(2)(ii) and (iii) within 30 months of the most recent NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year based on Tier 2.

(vi) If after four consecutive quarterly monitoring periods at a landfill, other than a closed landfill, there is no measured concentration of methane of 500 parts per million or greater from the surface of the landfill, the owner or operator must continue quarterly surface emission monitoring using the methods specified in this section.

(vii) If after four consecutive quarterly monitoring periods at a closed landfill there is no measured concentration of methane of 500 parts per million or greater from the surface of the landfill, the owner or operator must conduct annual surface emission monitoring using the methods specified in this section.

(viii) If a landfill has installed and operates a collection and control system that is not required by this subpart, then the collection and control system must meet the following criteria:

(A) The gas collection and control system must have operated for 6,570 out of 8,760 hours preceding the Tier 4 surface emissions monitoring demonstration.

(B) During the Tier 4 surface emissions monitoring demonstration, the gas collection and control system must operate as it normally would to collect and control as much landfill gas as possible.

(b) After the installation and startup of a collection and control system in compliance with this subpart, the owner or operator must calculate the NMOC emission rate for purposes of determining when the system can be capped, removed or decommissioned as provided in §60.762(b)(2)(v), using Equation 3:

$$M_{NMOC} = 1.89 \times 10^{-3} Q_{LFG} C_{NMOC} \qquad \text{(Eq. 3)}$$

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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}, must be determined by measuring the total landfill gas flow rate at the common header pipe that leads to the control system using a gas flow measuring device calibrated according to the provisions of section 10 of Method 2E of appendix A of this part.

(2) The average NMOC concentration, C_{NMOC}, must 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 25 or Method 25C. The sample location on the common header pipe must be before any condensate removal or other gas refining units. The landfill owner or operator must divide the NMOC concentration from Method 25 or 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~~ Department.

(i) Within 60 days after the date of completing each performance test (as defined in §60.8), the owner or operator must submit the results of the performance test, including any associated fuel analyses, according to §60.767(i)(1).

(ii) [Reserved]

(c) When calculating emissions for Prevention of Significant Deterioration purposes, the owner or operator of each MSW landfill subject to the provisions of this subpart must estimate the NMOC emission rate for comparison to the Prevention of Significant Deterioration major source and significance levels in §§51.166 or 52.21 of this chapter using Compilation of Air Pollutant Emission Factors, Volume I:

Stationary Point and Area Sources (AP-42) or other approved measurement procedures.

(d) For the performance test required in §60.762(b)(2)(iii)(B), Method 25 or 25C (Method 25C may be used at the inlet only) of appendix A of this part must be used to determine compliance with the 98 weight-percent efficiency or the 20 parts per million by volume outlet concentration level, unless another method to demonstrate compliance has been approved by the ~~Administrator~~ Department as provided by §60.767(c)(2). Method 3, 3A, or 3C must 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. Method 18 may be used in conjunction with Method 25A on a limited basis (compound specific, *e.g.,* methane) or Method 3C may be used to determine methane. The methane as carbon should be subtracted from the Method 25A total hydrocarbon value as carbon to give NMOC concentration as carbon. The landowner or operator must divide the NMOC concentration as carbon by 6 to convert from the CNMOC as carbon to CNMOC as hexane. Equation 4 must be used to calculate efficiency:

$$\text{Control Efficiency} = (NMOC_{in} - NMOC_{out})/(NMOC_{in}) \qquad \text{(Eq. 4)}$$

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Where:

$NMOC_{in}$ = Mass of NMOC entering control device.

$NMOC_{out}$ = Mass of NMOC exiting control device.

(e) For the performance test required in §60.762(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 components, 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).

(1) Within 60 days after the date of completing each performance test (as defined in §60.8), the owner or operator must submit the results of the performance tests, including any associated fuel analyses, required by §60.764(b) or (d) according to §60.767(i)(1).

(2) [Reserved]

§60.765 Compliance provisions.

(a) Except as provided in §60.767(c)(2), the specified methods in paragraphs (a)(1) through (6) of this section must be used to determine whether the gas collection system is in compliance with §60.762(b)(2)(ii).

(1) For the purposes of calculating the maximum expected gas generation flow rate from the landfill to determine compliance with §60.762(b)(2)(ii)(C)(*1*), either Equation 5 or Equation 6 must be used. The methane generation rate constant (k) and methane generation potential (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~~ Department. If k has been determined as specified in §60.764(a)(4), the value of k determined from the test must be used. A value of no more than 15 years must 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:

$$Q_m = 2L_oR\ (e^{-kc} - e^{-kt}) \qquad \text{(Eq. 5)}$$

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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 = 0 and e^{-kc} = 1).

(ii) For sites with known year-to-year solid waste acceptance rate:

$$Q_M = \sum_{i=1}^{n} 2kL_o M_i (e^{-kt_i}) \qquad \text{(Eq. 6)}$$

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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, Equation 5 or Equation 6 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 Equation 5 or Equation 6 in paragraphs (a)(1)(i) or (ii) of this section or other methods must 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 §60.762(b)(2)(ii)(C)(*2*), the owner or operator must design a system of vertical wells, horizontal collectors, or other collection devices, satisfactory to the ~~Administrator~~ Department, 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 §60.762(b)(2)(ii)(C)(*3*), the owner or operator must measure gauge pressure in the gas collection header applied to each individual well, monthly. If a positive pressure exists, action must be initiated to correct the exceedance within 5 calendar days, except for the three conditions allowed under §60.763(b). Any attempted corrective measure must not cause exceedances of other operational or performance standards.

(i) If negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement of positive pressure, the owner or operator must conduct a root cause analysis and correct the exceedance as soon as practicable, but no later than 60 days after positive pressure was first measured. The owner or operator must keep records according to §60.768(e)(3).

(ii) If corrective actions cannot be fully implemented within 60 days following the positive pressure measurement for which the root cause analysis was required, the owner or operator must also conduct a corrective action analysis and develop an implementation schedule to complete the corrective action(s) as soon as practicable, but no more than 120 days following the positive pressure measurement. The owner or operator must submit the items listed in §60.767(g)(7) as part of the next annual report. The owner or operator must keep records according to §60.768(e)(4).

(iii) If corrective action is expected to take longer than 120 days to complete after the initial exceedance, the owner or operator must submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the ~~Administrator~~ Department, according to §60.767(g)(7) and §60.767(j). The owner or operator must keep records according to §60.768(e)(5).

(4) [Reserved]

(5) For the purpose of identifying whether excess air infiltration into the landfill is occurring, the owner or operator must monitor each well monthly for temperature as provided in §60.763(c). If a well exceeds the operating parameter for temperature, action must be initiated to correct the exceedance within 5 calendar days. Any attempted corrective measure must not cause exceedances of other operational or performance standards.

(i) If a landfill gas temperature less than 55 degrees Celsius (131 degrees Fahrenheit) cannot be achieved within 15 calendar days of the first measurement of landfill gas temperature greater than 55 degrees Celsius (131 degrees Fahrenheit), the owner or operator must conduct a root cause analysis and

correct the exceedance as soon as practicable, but no later than 60 days after a landfill gas temperature greater than 55 degrees Celsius (131 degrees Fahrenheit) was first measured. The owner or operator must keep records according to §60.768(e)(3).

(ii) If corrective actions cannot be fully implemented within 60 days following the positive pressure measurement for which the root cause analysis was required, the owner or operator must also conduct a corrective action analysis and develop an implementation schedule to complete the corrective action(s) as soon as practicable, but no more than 120 days following the measurement of landfill gas temperature greater than 55 degrees Celsius (131 degrees Fahrenheit). The owner or operator must submit the items listed in §60.767(g)(7) as part of the next annual report. The owner or operator must keep records according to §60.768(e)(4).

(iii) If corrective action is expected to take longer than 120 days to complete after the initial exceedance, the owner or operator must submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the ~~Administrator~~ Department, according to §60.767(g)(7) and §60.767(j). The owner or operator must keep records according to §60.768(e)(5).

(6) An owner or operator seeking to demonstrate compliance with §60.762(b)(2)(ii)(C)(*4*) through the use of a collection system not conforming to the specifications provided in §60.769 must provide information satisfactory to the ~~Administrator~~ Department as specified in §60.767(c)(3) demonstrating that off-site migration is being controlled.

(b) For purposes of compliance with §60.763(a), each owner or operator of a controlled landfill must place each well or design component as specified in the approved design plan as provided in §60.767(c). Each well must be installed no later than 60 days after the date on which the initial solid waste has been in place for a period of:

(1) Five (5) years or more if active; or

(2) Two (2) years or more if closed or at final grade.

(c) The following procedures must be used for compliance with the surface methane operational standard as provided in §60.763(d).

(1) After installation and startup of the gas collection system, the owner or operator must 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 must 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 must be performed in accordance with section 8.3.1 of Method 21 of appendix A of this part, except that the probe inlet must be placed within 5 to 10 centimeters of the ground. Monitoring must be performed during typical meteorological conditions.

(4) Any reading of 500 parts per million or more above background at any location must be recorded as a monitored exceedance and the actions specified in paragraphs (c)(4)(i) through (v) of this section must be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements of §60.763(d).

(i) The location of each monitored exceedance must be marked and the location and concentration recorded.

(ii) Cover maintenance or adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of each exceedance must be made and the location must 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 must be taken and the location must 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 must be taken, and no further monitoring of that location is required until the action specified in paragraph (c)(4)(v) of this section 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 must be re-monitored 1 month from the initial exceedance. If the 1-month re-monitoring 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 re-monitoring shows an exceedance, the actions specified in paragraph (c)(4)(iii) or (v) of this section must 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 must 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~~ Department for approval.

(5) The owner or operator must 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 or §60.764(a)(6) must comply with the following instrumentation specifications and procedures for surface emission monitoring devices:

(1) The portable analyzer must meet the instrument specifications provided in section 6 of Method 21 of appendix A of this part, except that "methane" replaces all references to "VOC".

(2) The calibration gas must be methane, diluted to a nominal concentration of 500 parts per million in air.

(3) To meet the performance evaluation requirements in section 8.1 of Method 21 of appendix A of this part, the instrument evaluation procedures of section 8.1 of Method 21 of appendix A of this part must be used.

(4) The calibration procedures provided in sections 8 and 10 of Method 21 of appendix A of this part must be followed immediately before commencing a surface monitoring survey.

(e) The provisions of this subpart apply at all times, including periods of startup, shutdown or malfunction. During periods of startup, shutdown, and malfunction, you must comply with the work practice specified in §60.763(e) in lieu of the compliance provisions in §60.765.

§60.766 Monitoring of operations.

Except as provided in §60.767(c)(2):

(a) Each owner or operator seeking to comply with §60.762(b)(2)(ii)(C) for an active gas collection system must 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 §60.765(a)(3); and

(2) Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as follows:

(i) The nitrogen level must be determined using Method 3C, unless an alternative test method is established as allowed by §60.767(c)(2).

(ii) Unless an alternative test method is established as allowed by §60.767(c)(2), the oxygen level must be determined by an oxygen meter using Method 3A, 3C, or ASTM D6522-11 (incorporated by reference, see §60.17). Determine the oxygen level by an oxygen meter using Method 3A, 3C, or ASTM D6522-11 (if sample location is prior to combustion) except that:

(A) The span must be set between 10 and 12 percent oxygen;

(B) A data recorder is not required;

(C) Only two calibration gases are required, a zero and span;

(D) A calibration error check is not required;

(E) The allowable sample bias, zero drift, and calibration drift are ±10 percent.

(iii) A portable gas composition analyzer may be used to monitor the oxygen levels provided:

(A) The analyzer is calibrated; and

(B) The analyzer meets all quality assurance and quality control requirements for Method 3A or ASTM D6522-11 (incorporated by reference, see §60.17).

(3) Monitor temperature of the landfill gas on a monthly basis as provided in §60.765(a)(5). The

temperature measuring device must be calibrated annually using the procedure in 40 CFR part 60, appendix A-1, Method 2, Section 10.3.

(b) Each owner or operator seeking to comply with §60.762(b)(2)(iii) using an enclosed combustor must 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 a minimum accuracy of ±1 percent of the temperature being measured expressed in degrees Celsius or ±0.5 degrees Celsius, whichever is greater. A temperature monitoring device is not required for boilers or process heaters with design heat input capacity equal to or greater than 44 megawatts.

(2) A device that records flow to the control device and bypass of the control device (if applicable). The owner or operator must:

(i) Install, calibrate, and maintain a gas flow rate measuring device that must record the flow to the control device at least every 15 minutes; and

(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 must 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 §60.762(b)(2)(iii) using a non-enclosed flare must 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 the flare and bypass of the flare (if applicable). The owner or operator must:

(i) Install, calibrate, and maintain a gas flow rate measuring device that records the flow to the control device at least every 15 minutes; and

(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 must 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 §60.762(b)(2)(iii) using a device other than a non-enclosed flare or an enclosed combustor or a treatment system must provide information satisfactory to the ~~Administrator~~ Department as provided in §60.767(c)(2) describing the operation of the control device, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The ~~Administrator~~ Department must review the information and either approve it, or request that additional information be submitted. The ~~Administrator~~ Department may specify additional appropriate monitoring procedures.

(e) Each owner or operator seeking to install a collection system that does not meet the specifications in §60.769 or seeking to monitor alternative parameters to those required by §§60.763 through 60.766 must provide information satisfactory to the ~~Administrator~~ Department as provided in §60.767(c)(2) and (3) describing the design and operation of the collection system, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The ~~Administrator~~ Department may specify additional appropriate monitoring procedures.

(f) Each owner or operator seeking to demonstrate compliance with the 500 parts per million surface methane operational standard in §60.763(d) must monitor surface concentrations of methane according to the procedures in §60.765(c) and the instrument specifications in §60.765(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.

(g) Each owner or operator seeking to demonstrate compliance with §60.762(b)(2)(iii) using a landfill gas treatment system must maintain and operate all monitoring systems associated with the treatment system in accordance with the site-specific treatment system monitoring plan required in §60.768(b)(5)(ii)

and must calibrate, maintain, and operate according to the manufacturer's specifications a device that records flow to the treatment system and bypass of the treatment system (if applicable). The owner or operator must:

(1) Install, calibrate, and maintain a gas flow rate measuring device that records the flow to the treatment system at least every 15 minutes; and

(2) 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 must 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.

(h) The monitoring requirements of paragraphs (b), (c) (d) and (g) of this section apply at all times the affected source is operating, except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. You are required to complete monitoring system repairs in response to monitoring system malfunctions and to return the monitoring system to operation as expeditiously as practicable.

§60.767 Reporting requirements.

(a) *Design capacity report.* Each owner or operator subject to the requirements of this subpart must submit an initial design capacity report to the ~~Administrator~~ Department.

(1) *Submission.* The initial design capacity report fulfills the requirements of the notification of the date construction is commenced as required by §60.7(a)(1) and must be submitted no later than:

(i) ~~November 28, 2016, for landfills that commenced construction, modification, or reconstruction after July 17, 2014 but before August 29, 2016;~~ Ninety days after the date of commenced construction, modification, or reconstruction for MSW landfills that commenced construction, modification, or reconstruction on or after July 17, 2014 or

(ii) ~~Ninety days after the date of commenced construction, modification, or reconstruction for landfills that commence construction, modification, or reconstruction after August 29, 2016~~ The date specified in a State construction or operating permit, if applicable, or January 8, 2018, whichever is earlier, for all other subject MSW landfills.

(2) *Initial design capacity report.* The initial design capacity report must 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 must be calculated using good engineering practices. The calculations must be provided, along with the relevant parameters as part of the report. The landfill may calculate design capacity in either megagrams or cubic meters for comparison with the exemption values. 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. Any density conversions must be documented and submitted with the design capacity report. The ~~state, tribal, local agency or Administrator~~ Department may request other reasonable information as may be necessary to verify the maximum design capacity of the landfill.

(3) *Amended design capacity report.* An amended design capacity report must be submitted to the ~~Administrator~~ Department 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 meet or exceed 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 §60.768(f).

(b) *NMOC emission rate report.* Each owner or operator subject to the requirements of this subpart must submit an NMOC emission rate report following the procedure specified in paragraph (i)(2) of this section to the ~~Administrator~~ Department initially and annually thereafter, except as provided for in paragraph (b)(1)(ii) of this section. The ~~Administrator~~ Department may request such additional information as may be necessary to verify the reported NMOC emission rate.

(1) The NMOC emission rate report must contain an annual or 5-year estimate of the NMOC emission rate calculated using the formula and procedures provided in §60.764(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 must be submitted no later than indicated in paragraphs (b)(1)(i)(A) and (B) of this section. Subsequent NMOC emission rate reports must be submitted annually thereafter, except as provided for in paragraph (b)(1)(ii) of this section.

(A) ~~November 28, 2016, for landfills that commenced construction, modification, or reconstruction after July 17, 2014, but before August 29, 2016,~~ Ninety days after the date of commenced construction, modification, or reconstruction for MSW landfills that commenced construction, modification, or reconstruction on or after July 17, 2014 or

(B) ~~Ninety days after the date of commenced construction, modification, or reconstruction for landfills that commence construction, modification, or reconstruction after August 29, 2016~~ January 8, 2018 for all other subject MSW landfills.

(ii) If the estimated NMOC emission rate as reported in the annual report to the ~~Administrator~~ Department is less than 34 megagrams per year in each of the next 5 consecutive years, the owner or operator may elect to submit, following the procedure specified in paragraph (i)(2) of this section, an estimate of the NMOC emission rate for the next 5-year period in lieu of the annual report. This estimate must 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 must be provided to the ~~Administrator~~ Department. This estimate must 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 must be submitted to the ~~Administrator~~ Department. The revised estimate must 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 must 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 to submit an NMOC emission rate report, after installing a collection and control system that complies with §60.762(b)(2), during such time as the collection and control system is in operation and in compliance with §§60.763 and 60.765.

(c) *Collection and control system design plan.* Each owner or operator subject to the provisions of §60.762(b)(2) must submit a collection and control system design plan to the ~~Administrator~~ Department for approval according to the schedule in paragraph (c)(4) of this section. The collection and control system design plan must be prepared and approved by a professional engineer and must meet the following requirements:

(1) The collection and control system as described in the design plan must meet the design requirements in §60.762(b)(2).

(2) The collection and control system design plan must include any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions of §§60.763 through 60.768 proposed by the owner or operator.

(3) The collection and control system design plan must either conform with specifications for active collection systems in §60.769 or include a demonstration to the ~~Administrator~~ Department's satisfaction of the sufficiency of the alternative provisions to §60.769.

(4) 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~~ Department for approval 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:

(i) If the owner or operator elects to recalculate the NMOC emission rate after Tier 2 NMOC sampling and analysis as provided in §60.764(a)(3) and the resulting rate is less than 34 megagrams per year, annual periodic reporting must be resumed, using the Tier 2 determined site-specific NMOC concentration, until the calculated emission rate is equal to or greater than 34 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, must be submitted, following the procedures in paragraph (i)(2) of this section, within 180 days of the first calculated exceedance of 34 megagrams per year.

(ii) 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 §60.764(a)(4), and the resulting NMOC emission rate is less than 34 Mg/yr, annual periodic reporting must be resumed. The resulting site-specific methane generation rate constant k must 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 §60.764(a)(4) and the resulting site-specific methane generation rate constant k must be submitted, following the procedure specified in paragraph (i)(2) of this section, to the ~~Administrator~~ Department within 1 year of the first calculated emission rate equaling or exceeding 34 megagrams per year.

(iii) If the owner or operator elects to demonstrate that site-specific surface methane emissions are below 500 parts per million methane, based on the provisions of §60.764(a)(6), then the owner or operator must submit annually a Tier 4 surface emissions report as specified in this paragraph following the procedure specified in paragraph (i)(2) of this section until a surface emissions readings of 500 parts per million methane or greater is found. If the Tier 4 surface emissions report shows no surface emissions readings of 500 parts per million methane or greater for four consecutive quarters at a closed landfill, then the landfill owner or operator may reduce Tier 4 monitoring from a quarterly to an annual frequency. The ~~Administrator~~ Department may request such additional information as may be necessary to verify the reported instantaneous surface emission readings. The Tier 4 surface emissions report must clearly identify the location, date and time (to nearest second), average wind speeds including wind gusts, and reading (in parts per million) of any value 500 parts per million methane or greater, other than non-repeatable, momentary readings. For location, you must determine the latitude and longitude coordinates using an instrument with an accuracy of at least 4 meters. The coordinates must be in decimal degrees with at least five decimal places. The Tier 4 surface emission report must also include the results of the most recent Tier 1 and Tier 2 results in order to verify that the landfill does not exceed 50 Mg/yr of NMOC.

(A) The initial Tier 4 surface emissions report must be submitted annually, starting within 30 days of completing the fourth quarter of Tier 4 surface emissions monitoring that demonstrates that site-specific surface methane emissions are below 500 parts per million methane, and following the procedure specified in paragraph (i)(2) of this section.

(B) The Tier 4 surface emissions report must be submitted within 1 year of the first measured surface exceedance of 500 parts per million methane, following the procedure specified in paragraph (i)(2) of this section.

(5) The landfill owner or operator must notify the ~~Administrator~~ Department that the design plan is completed and submit a copy of the plan's signature page. The ~~Administrator~~ Department has 90 days to decide whether the design plan should be submitted for review. If the ~~Administrator~~ Department chooses to review the plan, the approval process continues as described in paragraph (c)(6) of this section. However, if the ~~Administrator~~ Department indicates that submission is not required or does not respond within 90 days, the landfill owner or operator can continue to implement the plan with the recognition that the owner or operator is proceeding at their own risk. In the event that the design plan is required to be modified to obtain approval, the owner or operator must take any steps necessary to conform any prior actions to the approved design plan and any failure to do so could result in an enforcement action.

(6) Upon receipt of an initial or revised design plan, the ~~Administrator~~ Department must review the information submitted under paragraphs (c)(1) through (3) 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. If the ~~Administrator~~ Department 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.

(7) If the owner or operator chooses to demonstrate compliance with the emission control requirements of this subpart using a treatment system as defined in this subpart, then the owner or operator must prepare a site-specific treatment system monitoring plan as specified in §60.768(b)(5).

(d) *Revised design plan.* The owner or operator who has already been required to submit a design plan under paragraph (c) of this section must submit a revised design plan to the ~~Administrator~~ Department for approval as follows:

(1) At least 90 days before expanding operations to an area not covered by the previously approved design plan.

(2) Prior to installing or expanding the gas collection system in a way that is not consistent with the design plan that was submitted to the ~~Administrator~~ Department according to paragraph (c) of this section.

(e) *Closure report.* Each owner or operator of a controlled landfill must submit a closure report to the ~~Administrator~~ Department within 30 days of waste acceptance cessation. The ~~Administrator~~ Department 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~~ Department, no additional wastes may be placed into the landfill without filing a notification of modification as described under §60.7(a)(4).

(f) *Equipment removal report.* Each owner or operator of a controlled landfill must submit an equipment removal report to the ~~Administrator~~ Department 30 days prior to removal or cessation of operation of the control equipment.

(1) The equipment removal report must contain all of the following items:

(i) A copy of the closure report submitted in accordance with paragraph (e) of this section;

(ii) A copy of the initial performance test report demonstrating that the 15-year minimum control period has expired, unless the report of the results of the performance test has been submitted to the EPA via the EPA's CDX, or information that demonstrates that the GCCS will be unable to operate for 15 years due to declining gas flows. In the equipment removal report, the process unit(s) tested, the pollutant(s) tested, and the date that such performance test was conducted may be submitted in lieu of the performance test report if the report has been previously submitted to the EPA's CDX; and

(iii) Dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 34 megagrams or greater of NMOC per year, unless the NMOC emission rate reports have been submitted to the EPA via the EPA's CDX. If the NMOC emission rate reports have been previously submitted to the EPA's CDX, a statement that the NMOC emission rate reports have been submitted electronically and the dates that the reports were submitted to the EPA's CDX may be submitted in the equipment removal report in lieu of the NMOC emission rate reports.

(2) The ~~Administrator~~ Department may request such additional information as may be necessary to verify that all of the conditions for removal in §60.762(b)(2)(v) have been met.

(g) *Annual report.* The owner or operator of a landfill seeking to comply with §60.762(b)(2) using an active collection system designed in accordance with §60.762(b)(2)(ii) must submit to the ~~Administrator~~ Department, following the procedure specified in paragraph (i)(2) of this section, annual reports of the recorded information in paragraphs (g)(1) through (7) of this section. The initial annual report must be submitted within 180 days of installation and startup of the collection and control system, and must include the initial performance test report required under §60.8, as applicable, unless the report of the results of the performance test has been submitted to the EPA via the EPA's CDX. In the initial annual report, the process unit(s) tested, the pollutant(s) tested, and the date that such performance test was conducted may be submitted in lieu of the performance test report if the report has been previously submitted to the EPA's CDX. For enclosed combustion devices and flares, reportable exceedances are defined under §60.768(c).

(1) Value and length of time for exceedance of applicable parameters monitored under §60.766(a), (b), (c), (d), and (g).

(2) Description and duration of all periods when the gas stream was diverted from the control device

or treatment system through a bypass line or the indication of bypass flow as specified under §60.766.

(3) Description and duration of all periods when the control device or treatment system was not operating and length of time the control device or treatment system was not operating.

(4) All periods when the collection system was not operating.

(5) The location of each exceedance of the 500 parts per million methane concentration as provided in §60.763(d) and the concentration recorded at each location for which an exceedance was recorded in the previous month. For location, you must determine the latitude and longitude coordinates using an instrument with an accuracy of at least 4 meters. The coordinates must be in decimal degrees with at least five decimal places.

(6) The date of installation and the location of each well or collection system expansion added pursuant to §60.765(a)(3), (a)(5), (b), and (c)(4).

(7) For any corrective action analysis for which corrective actions are required in §60.765(a)(3) or (5) and that take more than 60 days to correct the exceedance, the root cause analysis conducted, including a description of the recommended corrective action(s), the date for corrective action(s) already completed following the positive pressure reading, and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates.

(h) *Initial performance test report.* Each owner or operator seeking to comply with §60.762(b)(2)(iii) must 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.

(i) *Electronic reporting.* The owner or operator must submit reports electronically according to paragraphs (i)(1) and (2) of this section.

(1) Within 60 days after the date of completing each performance test (as defined in §60.8), the owner or operator must submit the results of each performance test according to the following procedures:

(i) For data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT Web site (*https://www3.epa.gov/ttn/chief/ert/ert_info.html*) at the time of the test, you must submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (*https://cdx.epa.gov/*). Performance test data must be submitted in a file format generated through the use of the EPA's ERT or an alternative file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT Web site, once the XML schema is available. If you claim that some of the performance test information being submitted is confidential business information (CBI), you must submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT Web site, including information claimed to be CBI, on a compact disc, flash drive or other commonly used electronic storage media to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's

CDX as described earlier in this paragraph.

(ii) For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT Web site at the time of the test, you must submit the results of the performance test to the ~~Administrator~~ Department ~~at the appropriate address listed in §60.4~~.

(2) Each owner or operator required to submit reports following the procedure specified in this paragraph must submit reports to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX.) The owner or operator must use the appropriate electronic report in CEDRI for this subpart or an alternate electronic file format consistent with the XML schema listed on the CEDRI Web site (*https://www3.epa.gov/ttn/chief/cedri/index.html*). If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the owner or operator must submit the report to the ~~Administrator~~ Department at the appropriate address listed in §60.4. Once the form has been available in CEDRI for 90 calendar days, the owner or operator must begin submitting all subsequent reports via CEDRI. The reports must be submitted by the deadlines specified in this subpart, regardless of the method in which the reports are submitted.

(j) *Corrective action and the corresponding timeline.* The owner or operator must submit according to paragraphs (j)(1) and (j)(2) of this section.

(1) For corrective action that is required according to §60.765(a)(3)(iii) or (a)(5)(iii) and is expected to take longer than 120 days after the initial exceedance to complete, you must submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the ~~Administrator~~ Department as soon as practicable but no later than 75 days after the first measurement of positive pressure or temperature monitoring value of 55 degrees Celsius (131 degrees Fahrenheit). The ~~Administrator~~ Department must approve the plan for corrective action and the corresponding timeline.

(2) For corrective action that is required according to §60.765(a)(3)(iii) or (a)(5)(iii) and is not completed within 60 days after the initial exceedance, you must submit a notification to the ~~Administrator~~ Department as soon as practicable but no later than 75 days after the first measurement of positive pressure or temperature exceedance.

(k) *Liquids addition.* The owner or operator of an affected landfill with a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters that has employed leachate recirculation or added liquids based on a Research, Development, and Demonstration permit (issued through Resource Conservation and Recovery Act, subtitle D, part 258) within the last 10 years must submit to the ~~Administrator~~ Department, annually, following the procedure specified in paragraph (i)(2) of this section, the following information:

(1) Volume of leachate recirculated (gallons per year) and the reported basis of those estimates (records or engineering estimates).

(2) Total volume of all other liquids added (gallons per year) and the reported basis of those estimates (records or engineering estimates).

(3) Surface area (acres) over which the leachate is recirculated (or otherwise applied).

(4) Surface area (acres) over which any other liquids are applied.

(5) The total waste disposed (megagrams) in the areas with recirculated leachate and/or added liquids based on on-site records to the extent data are available, or engineering estimates and the reported basis of those estimates.

(6) The annual waste acceptance rates (megagrams per year) in the areas with recirculated leachate and/or added liquids, based on on-site records to the extent data are available, or engineering estimates.

(7) The initial report must contain items in paragraph (k)(1) through (6) of this section per year for the initial annual reporting period as well as for each of the previous 10 years, to the extent historical data are available in on-site records, and the report must be submitted no later than~~:~~ thirteen (13) months after the date of commenced construction, modification, or reconstruction for landfills that commenced construction, modification, or reconstruction on or after July 17, 2014 containing data for the first 12 months after August 29, 2016.

(i) ~~September 27, 2017, for landfills that commenced construction, modification, or reconstruction after July 17, 2014 but before August 29, 2016 containing data for the first 12 months after August 29,~~

~~2016; or~~ [Reserved].

(ii) ~~Thirteen (13) months after the date of commenced construction, modification, or reconstruction for landfills that commence construction, modification, or reconstruction after August 29, 2016 containing data for the first 12 months after August 29, 2016~~ [Reserved].

(8) Subsequent annual reports must contain items in paragraph (k)(1) through (6) of this section for the 365-day period following the 365-day period included in the previous annual report, and the report must be submitted no later than 365 days after the date the previous report was submitted.

(9) Landfills may cease annual reporting of items in paragraphs (k)(1) through (7) of this section once they have submitted the closure report in paragraph (e) of this section.

(l) *Tier 4 notification.* (1) The owner or operator of an affected landfill with a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters must provide a notification of the date(s) upon which it intends to demonstrate site-specific surface methane emissions are below 500 parts per million methane, based on the Tier 4 provisions of §60.764(a)(6). The landfill must also include a description of the wind barrier to be used during the SEM in the notification. Notification must be postmarked not less than 30 days prior to such date.

(2) If there is a delay to the scheduled Tier 4 SEM date due to weather conditions, including not meeting the wind requirements in §60.764(a)(6)(iii)(A), the owner or operator of a landfill shall notify the ~~Administrator~~ Department by email or telephone no later than 48 hours before any delay or cancellation in the original test date, and arrange an updated date with the ~~Administrator~~ Department by mutual agreement.

§60.768 Recordkeeping requirements.

(a) Except as provided in §60.767(c)(2), each owner or operator of an MSW landfill subject to the provisions of §60.762(b)(2)(ii) and (iii) must keep for at least 5 years up-to-date, readily accessible, on-site records of the design capacity report that triggered §60.762(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 §60.767(c)(2), each owner or operator of a controlled landfill must keep up-to-date, readily accessible records for the life of the control system equipment of the data listed in paragraphs (b)(1) through (5) of this section as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring must be maintained for a minimum of 5 years. Records of the control device vendor specifications must be maintained until removal.

(1) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §60.762(b)(2)(ii):

(i) The maximum expected gas generation flow rate as calculated in §60.765(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~~ Department.

(ii) The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in §60.769(a)(1).

(2) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §60.762(b)(2)(iii) through use of an enclosed combustion device other than a boiler or process heater with a design heat input capacity equal to or greater than 44 megawatts:

(i) The average 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 §60.762(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 §60.762(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 §60.762(b)(2)(iii)(A) through use of a non-enclosed 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.

(5) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §60.762(b)(2)(iii) through use of a landfill gas treatment system:

(i) *Bypass records.* Records of the flow of landfill gas to, and bypass of, the treatment system.

(ii) *Site-specific treatment monitoring plan,* to include:

(A) Monitoring records of parameters that are identified in the treatment system monitoring plan and that ensure the treatment system is operating properly for each intended end use of the treated landfill gas. At a minimum, records should include records of filtration, de-watering, and compression parameters that ensure the treatment system is operating properly for each intended end use of the treated landfill gas.

(B) Monitoring methods, frequencies, and operating ranges for each monitored operating parameter based on manufacturer's recommendations or engineering analysis for each intended end use of the treated landfill gas.

(C) Documentation of the monitoring methods and ranges, along with justification for their use.

(D) Identify who is responsible (by job title) for data collection.

(E) Processes and methods used to collect the necessary data.

(F) Description of the procedures and methods that are used for quality assurance, maintenance, and repair of all continuous monitoring systems.

(c) Except as provided in §60.767(c)(2), each owner or operator of a controlled landfill subject to the provisions of this subpart must keep for 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in §60.766 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 must be recorded and reported under §60.767(g):

(i) For enclosed combustors except for boilers and process heaters with design heat input capacity of 44 megawatts (150 million British thermal units per hour) or greater, all 3-hour periods of operation during which the average temperature was more than 28 degrees Celsius (82 degrees Fahrenheit) below the average combustion temperature during the most recent performance test at which compliance with §60.762(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 must keep up-to-date, readily accessible continuous records of the indication of flow to the control system and 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 §60.766.

(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 §60.762(b)(2)(iii) must 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 a non-enclosed flare must keep up-to-date, readily accessible continuous records of the flame or flare pilot flame monitoring specified under §60.766(c), and up-to-date, readily accessible records of all periods of operation in which the flame or flare pilot flame is absent.

(5) Each owner or operator of a landfill seeking to comply with §60.762(b)(2) using an active collection system designed in accordance with §60.762(b)(2)(ii) must keep records of periods when the collection system or control device is not operating.

(d) Except as provided in §60.767(c)(2), each owner or operator subject to the provisions of this subpart must 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 must keep up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified under §60.765(b).

(2) Each owner or operator subject to the provisions of this subpart must 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 §60.769(a)(3)(i) as well as any nonproductive areas excluded from collection as provided in §60.769(a)(3)(ii).

(e) Except as provided in §60.767(c)(2), each owner or operator subject to the provisions of this subpart must keep for at least 5 years up-to-date, readily accessible records of the following:

(1) All collection and control system exceedances of the operational standards in §60.763, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance.

(2) Each owner or operator subject to the provisions of this subpart must also keep records of each wellhead temperature monitoring value of 55 degrees Celsius (131 degrees Fahrenheit) or above, each wellhead nitrogen level at or above 20 percent, and each wellhead oxygen level at or above 5 percent.

(3) For any root cause analysis for which corrective actions are required in §60.765(a)(3)(i) or (a)(5)(i), keep a record of the root cause analysis conducted, including a description of the recommended corrective action(s) taken, and the date(s) the corrective action(s) were completed.

(4) For any root cause analysis for which corrective actions are required in §60.765(a)(3)(ii) or (a)(5)(ii), keep a record of the root cause analysis conducted, the corrective action analysis, the date for corrective action(s) already completed following the positive pressure reading or high temperature reading, and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates.

(5) For any root cause analysis for which corrective actions are required in §60.765(a)(3)(iii) or (a)(5)(iii), keep a record of the root cause analysis conducted, the corrective action analysis, the date for corrective action(s) already completed following the positive pressure reading or high temperature reading, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates, and a copy of any comments or final approval on the corrective action analysis or schedule from the regulatory agency.

(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”, must 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.

(g) Landfill owners or operators seeking to demonstrate that site-specific surface methane emissions are below 500 parts per million by conducting surface emission monitoring under the Tier 4 procedures specified in §60.764(a)(6) must keep for at least 5 years up-to-date, readily accessible records of all surface emissions monitoring and information related to monitoring instrument calibrations conducted according to sections 8 and 10 of Method 21 of appendix A of this part, including all of the following items:

(1) Calibration records:

(i) Date of calibration and initials of operator performing the calibration.

(ii) Calibration gas cylinder identification, certification date, and certified concentration.

(iii) Instrument scale(s) used.

(iv) A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value.

(v) If an owner or operator makes their own calibration gas, a description of the procedure used.

(2) Digital photographs of the instrument setup, including the wind barrier. The photographs must be

time and date-stamped and taken at the first sampling location prior to sampling and at the last sampling location after sampling at the end of each sampling day, for the duration of the Tier 4 monitoring demonstration.

(3) Timestamp of each surface scan reading:

(i) Timestamp should be detailed to the nearest second, based on when the sample collection begins.

(ii) A log for the length of time each sample was taken using a stopwatch (*e.g.,* the time the probe was held over the area).

(4) Location of each surface scan reading. The owner or operator must determine the coordinates using an instrument with an accuracy of at least 4 meters. Coordinates must be in decimal degrees with at least five decimal places.

(5) Monitored methane concentration (parts per million) of each reading.

(6) Background methane concentration (parts per million) after each instrument calibration test.

(7) Adjusted methane concentration using most recent calibration (parts per million).

(8) For readings taken at each surface penetration, the unique identification location label matching the label specified in paragraph (d) of this section.

(9) Records of the operating hours of the gas collection system for each destruction device.

(h) Except as provided in §60.767(c)(2), each owner or operator subject to the provisions of this subpart must keep for at least 5 years up-to-date, readily accessible records of all collection and control system monitoring data for parameters measured in §60.766(a)(1), (2), and (3).

(i) Any records required to be maintained by this subpart that are submitted electronically via the EPA's CDX may be maintained in electronic format.

(j) For each owner or operator reporting leachate or other liquids addition under §60.767(k), keep records of any engineering calculations or company records used to estimate the quantities of leachate or liquids added, the surface areas for which the leachate or liquids were applied, and the estimates of annual waste acceptance or total waste in place in the areas where leachate or liquids were applied.

§60.769 Specifications for active collection systems.

(a) Each owner or operator seeking to comply with §60.762(b)(2)(i) must 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~~ Department as provided in §60.767(c)(2) and (3):

(1) The collection devices within the interior must be certified to achieve comprehensive control of surface gas emissions by a professional engineer. The following issues must be addressed in the design: Depths of refuse, refuse gas generation rates and flow characteristics, cover properties, gas system expandability, leachate and condensate management, accessibility, compatibility with filling operations, integration with closure end use, air intrusion control, corrosion resistance, fill settlement, resistance to the refuse decomposition heat, and ability to isolate individual components or sections for repair or troubleshooting without shutting down entire collection system.

(2) The sufficient density of gas collection devices determined in paragraph (a)(1) of this section must 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 must control all gas producing areas, except as provided by paragraphs (a)(3)(i) and (ii) of this section.

(i) Any segregated area of asbestos or nondegradable material may be excluded from collection if documented as provided under §60.768(d). The documentation must provide the nature, date of deposition, location and amount of asbestos or nondegradable material deposited in the area, and must be provided to the ~~Administrator~~ Department 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 must be documented and provided to the ~~Administrator~~ Department upon request. A separate NMOC emissions estimate must be made for each

section proposed for exclusion, and the sum of all such sections must be compared to the NMOC emissions estimate for the entire landfill.

(A) The NMOC emissions from each section proposed for exclusion must be computed using Equation 7:

$$Q_i = 2\ k\ L_o M_i (e^{-kt_i})\ (C_{NMOC})\ (3.6 \times 10^{-9}) \qquad \text{(Eq. 7)}$$

View or download PDF

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.

(B) If the owner/operator is proposing to exclude, or cease gas collection and control from, nonproductive physically separated (*e.g.,* separately lined) closed areas that already have gas collection systems, NMOC emissions from each physically separated closed area must be computed using either Equation 3 in §60.764(b) or Equation 7 in paragraph (a)(3)(ii)(A) of this section.

(iii) The values for k and C_{NMOC} determined in field testing must 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, L_o and C_{NMOC} provided in §60.764(a)(1) or the alternative values from §60.764(a)(5) must 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 §60.762(b)(2)(ii)(A) construct the gas collection devices using the following equipment or procedures:

(1) The landfill gas extraction components must 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 must extend as necessary to comply with emission and migration standards. Collection devices such as wells and horizontal collectors must be perforated to allow gas entry without head loss sufficient to impair performance across the intended extent of control. Perforations must be situated with regard to the need to prevent excessive air infiltration.

(2) Vertical wells must be placed so as not to endanger underlying liners and must address the occurrence of water within the landfill. Holes and trenches constructed for piped wells and horizontal collectors must 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 must 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 must include a positive closing throttle valve, any necessary seals and couplings, access couplings and at least one sampling port. The collection devices must be constructed of PVC, HDPE, fiberglass, stainless steel, or other nonporous material of suitable thickness.

(c) Each owner or operator seeking to comply with §60.762(b)(2)(iii) must convey the landfill gas to a control system in compliance with §60.762(b)(2)(iii) through the collection header pipe(s). The gas mover equipment must 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 must be used to project the maximum flow rate. If no flow data exists, the procedures in paragraph (c)(2) of this section must be used.

(2) For new collection systems, the maximum flow rate must be in accordance with §60.765(a)(1).

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APPENDIX C

Certification of Public Noticing [and Public Hearing]

1 Legal Notice in News Journal on March 12
2 Legal Notice in Delaware State News on March 12
3 Public Notice on DNREC website
4 Public Notice on Delaware's Statewide Meeting Calendar
5 Public Notice in biweekly E-News Update from DNREC's Office of Environmental Protection
6 Notification to EPA Region 3 and the state and local agencies in the region
7 Certification that the hearing was held in accordance with the requirements of 40 CFR 60.23(d)
8 List of hearing attendees and their affiliation
9 Brief summary of presentations or written submissions to the Public Hearing Record

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The News Journal Media Group
A GANNETT COMPANY

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(302) 324-2676
Legal Fax:
302 324-2249

SD DNREC AIR RESOURCE
100 W WATER ST # 6A

DOVER, DE 19904

AFFIDAVIT OF PUBLICATION

State of Delaware
New Castle County

Personally appeared **The News Journal**

Of the **The News Journal Media Group,** a newspaper printed, published and circulated in the State of Delaware, who being duly sworn, deposeth and saith that the advertisement of which the annexed is a true copy, has been published in the said newspaper 1 times, once in each issue as follows:

03/12/17 A.D 2017

Sherry Ann Salvia
Sworn and subscribed before me, this 13 day of March, 2017

Linda Barber

Ad Number: 0001985376

SHERRY ANN SALVIA
MY COMMISSION
EXPIRES ON
02-06-2019
NOTARY PUBLIC
STATE OF DELAWARE

Legal notification printed at larger size for affidavit.

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Ad Number: 0001985376 Run Dates: 03/12/17

DNREC – Division of Air Quality

LEGAL NOTICE

PUBLIC HEARING

The Department of Natural Resources and Environmental Control (DNREC) will conduct a public hearing on a proposed State Plan and amendment to existing **Regulation No. 1120** New Source Performance Standards to add a new standard (Section 30) that is applicable to municipal solid waste landfills (MSWLs).

On August 29, 2016, the EPA promulgated two regulations applicable to MSWLs. The EPA promulgated 40 CFR Part 60 Subpart XXX, which regulates the emissions from new (i.e., newly constructed, reconstructed, or modified) MSWLs and 40 CFR Part 60 Subpart Cf, which requires States to regulate emissions from existing MSWLs. The purpose of these two federal regulations is to reduce volatile organic compounds (VOCs) and methane emissions from MSWLs.

DNREC is proposing to incorporate the federal new MSWL requirements in Subpart XXX by reference as Section 30 of **Regulation No. 1120.** To satisfy the existing MSWL requirements of Subpart Cf, the applicability of Section 30 will be expanded to include both existing and new MSWLs. Once finalized, Section 30 and the State Plan will be submitted to the EPA for approval. There are three MSWLs in Delaware; all are operated by the Delaware Solid Waste Authority and will be subject to the State Plan and amended regulation.

The public hearing on this proposed State Plan and amendment of Regulation No. 1120 will be held on Monday, April 24, 2017, beginning at 6:00PM in the Department's office located at 100 W. Water Street, Suite 6A, Dover, DE.

The proposed amendment and the State Plan are available for public review (1) at the Department's office at 715 Grantham Lane in New Castle, DE; (2) at the Department's office at 100 W. Water Street, Suite 6A in Dover, DE; (3) in the statewide Public Meeting Calendar notice for this hearing at https://publicmeetings.delaware.gov/, and (4) in the April 1, 2017 edition of the Delaware Register of Regulations on and after April 1 at http://regulations.delaware.gov/services/register.shtml. For additional information or any appointment to inspect the proposed amendment and State Plan, please contact either Jim Snead at the New Castle office at (302) 323-4542 or jsnead@state.de.us or Ron Amirikian at the Dover office at (302) 739-9402 or ronald.amirikian@state.de.us.

Statements and testimony may be presented either orally or in writing at the April 24 public hearing. If you are unable to attend or wish to submit your comments in advance of the public hearing, please send your comments to the address below. Interested parties may also submit written comments to the Department, to the same 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

THIS IS THE ONLY TIME THIS NOTICE WILL APPEAR.

3/12- NJ

INDEPENDENT NEWSMEDIA INC. USA

110 Galaxy Drive • Dover, DE • 19901 • 1-800-282-8586

State of Delaware:

County of Kent:

Before me, a Notary Public, for the County and State aforesaid, Edward Dulin, known to me to be such, who being sworn according to law deposes and says that he is President of Independent Newsmedia Inc. USA, the publisher of the **Delaware State News**, a daily newspaper published at Dover, County of Kent, and State of Delaware, and that the notice, a copy of which is hereto attached, as published in the **Delaware State News** in its issue of March 12, 2017.

President
Independent Newsmedia Inc. USA

Sworn to and subscribed before me this 12th

Day of March A.D. 2017

JANET E. LEVY NOTARY PUBLIC MY COMMISSION EXPIRES ON 09-20-17 STATE OF DELAWARE

Janet Levy
Notary Public

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DNREC – Division of Air Quality
LEGAL NOTICE

PUBLIC HEARING

The Department of Natural Resources and Environmental Control (DNREC) will conduct a public hearing on a proposed State Plan and amendment to existing **Regulation No. 1120** New Source Performance Standards to add a new standard (Section 30) that is applicable to municipal solid waste landfills (MSWLs).

On August 29, 2016, the EPA promulgated two regulations applicable to MSWLs. The EPA promulgated 40 CFR Part 60 Subpart XXX, which regulates the emissions from new (i.e., newly constructed, reconstructed, or modified) MSWLs and 40 CFR Part 60 Subpart Cf, which requires States to regulate emissions from existing MSWLs. The purpose of these two federal regulations is to reduce volatile organic compounds (VOCs) and methane emissions from MSWLs.

DNREC is proposing to incorporate the federal new MSWL requirements in Subpart XXX by reference as Section 30 of **Regulation No. 1120**. To satisfy the existing MSWL requirements of Subpart Cf, the applicability of Section 30 will be expanded to include both existing and new MSWLs. Once finalized, Section 30 and the State Plan will be submitted to the EPA for approval. There are three MSWLs in Delaware; all are operated by the Delaware Solid Waste Authority and will be subject to the State Plan and amended regulation.

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DNREC – Division of Air Quality
Subject: April 24 Public Hearing
715 Grantham Lane
New Castle, DE 19720

THIS IS THE ONLY TIME THIS NOTICE WILL APPEAR.

17046 DSN 3/12/2017

DNREC Public Notices Website

http://www.dnrec.delaware.gov/Lists/Public%20Notices/DispForm.aspx?ID=3670&Source=http%3A%2F%2Fwww%2Ednrec%2Edelaware%2Egov%2FLists%2FPublic%2520Notices%2FAllItems%2Easpx&ContentTypeId=0x010034FD6D348B0CF04392485E93FC15AB3A

Public Notices : PUBLIC HEARING

Start Date	3/12/2017
End Date	4/24/2017
Division	Air Quality
Notice Text	DNREC/DIVISION OF AIR QUALITY LEGAL NOTICE PUBLIC HEARING The Department of Natural Resources and Environmental Control (DNREC) will conduct a public hearing on a proposed State Plan and amendment to existing Regulation No. 1120 New Source Performance Standards to add a new standard (Section 30) that is applicable to municipal solid waste landfills (MSWLs). On August 29, 2016, the EPA promulgated two regulations applicable to MSWLs. The EPA promulgated 40 CFR Part 60 Subpart XXX, which regulates the emissions from new (i.e., newly constructed, reconstructed, or modified) MSWLs and 40 CFR Part 60 Subpart Cf, which requires States to regulate emissions from existing MSWLs. The purpose of these two federal regulations is to reduce volatile organic compounds (VOCs) and methane emissions from MSWLs. DNREC is proposing to incorporate the federal new MSWL requirements in Subpart XXX by reference as Section 30 of Regulation No. 1120. To satisfy the existing MSWL requirements of Subpart Cf, the applicability of Section 30 will be expanded to include both existing and new MSWLs. Once finalized, Section 30 and the State Plan will be submitted to the EPA for approval. There are three MSWLs in Delaware; all are operated by the Delaware Solid Waste Authority and will be subject to the State Plan and amended regulation. The public hearing on this proposed State Plan and amendment of Regulation No. 1120 will be held on Monday, April 24, 2017, beginning at 6:00PM in the Department's office located at 100 W. Water Street, Suite 6A, Dover, DE. The proposed amendment and the State Plan are available for public review (1) at the Department's office at 715 Grantham Lane in New Castle, DE; (2) at the Department's office at 100 W. Water Street, Suite 6A in Dover, DE; (3) in the statewide Public Meeting Calendar notice for this hearing at https://publicmeetings.delaware.gov/, and (4) in the April 1, 2017 edition of the Delaware Register of Regulations on and after April 1 at http://regulations.delaware.gov/services/register.shtml. For additional information or any appointment to inspect the proposed amendment and State Plan, please contact either Jim Snead at the New Castle office at (302) 323-4542 or jsnead@state.de.us or Ron Amirikian at the Dover office at (302) 739-9402 or ronald.amirikian@state.de.us. Statements and testimony may be presented either orally or in writing at the April 24 public hearing. If you are unable to attend or wish to submit your comments in advance of the public hearing, please send your comments to the address below. Interested parties may also submit written comments to the Department, to the same 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 THIS IS THE ONLY TIME THIS NOTICE WILL APPEAR.
Start + 7	3/19/2017

Created at 3/8/2017 2:36 PM by mpolo
Last modified at 3/8/2017 2:36 PM by mpolo

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https://publicmeetings.delaware.gov/Meeting/52522

Public Hearing – Section 30 of 7 DE Admin Code 1120/State Plan (Municipal Solide Waste Landfills)

06:00 PM – 06:00 PM, Monday, April 24, 2017
DNREC Division of Air Quality / Air Quality / Natural Resources and Environmental Control

MEETING DESCRIPTION

On 8/29/16, EPA finalized 2 rules applicable to MSWLs. EPA finalized 40 CFR Part 60 Sub XXX, which regulated the emissions of new MSWLs. EPA finalized 40 CFR Part 60 Sub Cf, which mandated states to develop plans to regulate emissions of existing MSWLs. The purpose of this action is to incorporate the requirements in Sub XXX by reference as Sect. 30 of Reg. 1120 and to satisfy the existing requirements of Sub Cf by expanding the applicability of Sect. 30 to include existing & new MSWLs.

The proposed amendment and the State Plan are available for public review (1) at the Departments office at 715 Grantham Lane in New Castle, DE; (2) at the Departments office at 100 W. Water Street, Suite 6A in Dover, DE; (3) in the statewide Public Meeting Calendar notice for this hearing at https://publicmeetings.delaware.gov/, and (4) in the April 1, 2017 edition of the Delaware Register of Regulations on and after April 1 at http://regulations.delaware.gov/services/register.shtml. For additional information or any appointment to inspect the proposed amendment and State Plan, please contact either Jim Snead at the New Castle office at (302) 323-4542 or jsnead@state.de.us or Ron Amirikian at the Dover office at (302) 739-9402 or ronald.amirikian@state.de.us.

CHANGE HISTORY

Change Date	Change Reason
03/20/2017	Topic change - Purpose
03/17/2017	Location change - Location Comments
03/17/2017	Topic change - Purpose
03/17/2017	Document change - Associated Document saved
03/17/2017	Document change - Associated Document saved
03/17/2017	Document change - Associated Document saved
03/17/2017	Document change - Associated Document saved
03/17/2017	Document change - Agenda saved
03/17/2017	Document change - Associated Document saved
03/17/2017	Document change - Associated Document saved
03/17/2017	Location change - Location Comments
03/17/2017	Topic change - Meeting Information
03/17/2017	New

CONTACT INFORMATION

Jim Snead
302-323-4542
james.snead@state.de.us
Website

ADDRESS

Department of Natural Resources & Environmental Control
100 W. Water Street
Dover, DE 19904

Statements and testimony may be presented either orally or in writing at a public hearing. If you are unable to attend or wish to submit your comments in advance send them to Jim Snead, 715 Grantham Lane, New Castle, DE 9720. Interested parties may also submit written comments to the Department, to Jim Snead until the end of the comment period, which will extend through May 9, unless a longer period is designated by the hearing officer at the hearing

VIRTUAL MEETING INFORMATION

None

DOCUMENTS

Agenda
Document

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Snead, James (DNREC)

From: Nedelka, Katherine (DNREC)
Sent: Tuesday, March 21, 2017 9:51 AM
Subject: DNREC E-News March 21 2017

NEWS FROM DNREC'S OFFICE OF ENVIRONMENTAL PROTECTION 03/21/17

The biweekly E-News Update features current information on the Divisions of Air Quality (DAQ), Waste and Hazardous Substances (WHS), and Water regarding public meetings, workshops, hearings, and regulatory documents available for public comment, as well as general news updates. For those of you who are receiving the E-News Update for the first time, the subscription is FREE!
Please sign up at: http://www.dnrec.delaware.gov/Pages/DNRECLists.aspx under "Division of Waste & Hazardous Substances Lists." There is no form to fill out; it's done in three clicks!
Suggestions? Additions? Please call Kathy Nedelka at 302-739-9400, or send an email to katherine.nedelka@state.de.us
Published by the Divisions of Air Quality, Waste and Hazardous Substances, and Water.
Visit us at: www.awm.delaware.gov

SECRETARY'S ORDERS

Secretary's Order No. 2017-A-0009
RE: Notice of Administrative Penalty Assessment and Secretary's Order issued to Delaware City Refining Company for violation of 7 Del. Code Chapter 60, pursuant to 7 Del.C. §6005(b)(3).

Secretary's Order No. 2017-WH-0010
RE: Cease and desist Secretary's Order to Heritage-Crystal Clean, LLC, for violation of 7 Del. C. Chapters 60 and 63 and 7 DE Admin. Code 1302, Delaware's Regulations Governing Hazardous Waste ("DRGHW"). Accordingly, the Department is issuing this Order to Cease and Desist, pursuant to 7 Del. C. § 6018.

Secretary's Order No. 2017-WH-0013
RE: Approving Final Regulations to Amend 7 DE Admin. Code 1352: Regulations Governing Aboveground Storage Tank Systems Hearing officer's report included

UPCOMING AIR, WASTE, & WATER-RELATED HEARINGS, MEETINGS, & EVENTS

DELAWARES ENVIRONMENTAL MITIGATION PLAN- This meeting will be held on **March 23** beginning at 6pm at 100 W Water St, Dover 19904. On October 25, 2016, a Partial Consent Decree was finalized between the United States Justice Department, the Volkswagen (VW) Corporation, and its subsidiaries regarding the installation and use of emissions testing defeat devices in over 500,000 vehicles sold and operated in the United States beginning in 2009. Use of these defeat devices has increased air emissions of nitrogen oxide (NOX), resulting in adverse impacts to air quality and violating the federal Clean Air Act. In response to the Settlement, the Division of Air Quality has developed a proposed mitigation plan to accept and distribute these funds to eligible projects. The proposed plan is focused on the eligible types of mitigation actions that can produce the greatest air quality benefit in terms of NOX emission reductions, reduce public exposure, and promote clean vehicle technologies. The plan is expected to have a significant positive impact on Delaware; DAQ is requesting input from the public to help develop a final mitigation plan prior to taking any formal action. Public comments are being accepted until **April 3**. Written comments may be sent to VW_Mitigation_Plan@state.de.us or mailed to: Division of Air Quality, State Street Commons, 100 W. Water Street, Suite 6A, Dover, 19904. For more information visit:
https://publicmeetings.delaware.gov/Meeting/51374

WATER SUPPLY COORDINATING COUNCIL MEETING - The Council will hold a meeting on **March 30** from 10am to 12pm at the Kent County Administration Complex, Conference Room 220, 555 Bay Road, Dover, 19901. For additional information, please contact Kimberly Burris at (302) 739-9945; or visit:
https://publicmeetings.delaware.gov/Meeting/51191

BOARD OF CERTIFICATION FOR WASTEWATER OPERATORS MONTHLY MEETING – This is a regular monthly meeting of the Board of Certification for Wastewater Operators. Meeting will take place on **April 4** from 9am to10am at the Richardson & Robbins Building, Conference Room B172, 89 Kings Hwy, Dover 19901. For additional information contact Faye Wheeler at (302) 739-9946; or visit:
https://publicmeetings.delaware.gov/Meeting/39380

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BOILER SAFETY COUNCIL MEETING – Meeting will discuss proposed regulation changes and will take place on **April 5** beginning at 10am at the Cannon Building, 1st floor, 861 Silver Lake Blvd, Dover, 19904. For additional information contact Alex Rittberg at 302-395-2500; or visit: https://publicmeetings.delaware.gov/Meeting/51236

ON-SITE SYSTEMS ADVISORY BOARD MEETING – This is a regular monthly meeting that will be held on **April 5** from 9:15am to 11:30am at the Richardson and Robbins Building, Conference Room B228; 89 Kings Highway, Dover, 19901. For additional information, contact Dawn Dryden, 302-739-9948; or visit: https://publicmeetings.delaware.gov/Meeting/50645

PUBLIC HEARING - Section 30 of 7 DE Admin Code 1120/State Plan (Municipal Solide Waste Landfills) – This meeting will be held on April 24 beginning at 6pm at DNREC, 100 W Water St, Dover, 19904. On 8/29/16, EPA finalized 2 rules applicable to MSWLs. EPA finalized 40 CFR Part 60 Sub XXX, which regulated the emissions of new MSWLs. EPA finalized 40 CFR Part 60 Sub Cf, which mandated states to develop plans to regulate emissions of existing MSWLs. The purpose of this action is to incorporate the requirements in Sub XXX by reference as Sect. 30 of Reg. 1120 and to satisfy the existing requirements of Sub Cf by expanding the applicability of Sect. 30 to include existing & new MSWLs. The proposed amendment and the State Plan are available for public review (1) at the Departments office at 715 Grantham Lane in New Castle, (2) at the Departments office at 100 W. Water Street, Suite 6A in Dover, (3) in the statewide Public Meeting Calendar notice for this hearing at https://publicmeetings.delaware.gov/, and (4) in the April 1 edition of the Delaware Register of Regulations on and after April 1 at http://regulations.delaware.gov/services/register.shtml. For additional information or any appointment to inspect the proposed amendment and State Plan, please contact either Jim Snead at the New Castle office at (302) 323-4542 or jsnead@state.de.us or Ron Amirikian at the Dover office at (302) 739-9402 or ronald.amirikian@state.de.us; or visit: https://publicmeetings.delaware.gov/Meeting/52522

BOARD OF CERTIFICATION FOR WASTEWATER OPERATORS MONTHLY MEETING – This is a regular monthly meeting of the Board of Certification for Wastewater Operators. Meeting will take place on **May 2** from 9am to10am at the Richardson & Robbins Building, Conference Room B172, 89 Kings Hwy, Dover 19901. For additional information contact Faye Wheeler at (302) 739-9946; or visit: https://publicmeetings.delaware.gov/Meeting/39381

OPT-IN! THE DELAWARE DIVISION OF AIR QUALITY (DAQ) is committed to working with citizens to continuously optimize Delaware's air quality and protect public health, welfare, and the environment. To determine that the DAQ is meeting the air quality needs of the citizens across the state, we encourage you to participate in our opt-in list. In the future you will receive surveys that will allow us to analyze our performance. You can access the opt-in list by clicking: https://survey.co1.qualtrics.com/jfe/form/SV_1RGZGUYt8fSuqkB

AIR QUALITY PERMITTING PROGRAM – Notice has been given that the facilities listed below have submitted applications for air quality management permits. The applications, the "draft/proposed" permits, all materials that the applicant has submitted (other than those granted confidential treatment under DNREC rules), and a copy of summary of other materials, if any, considered in preparing the "draft/proposed" permit, may be inspected at the offices of the Division of Air Quality, 100 W. Water Street, Suite 6A, Dover, 19904. **All comments and public hearing requests** should be mailed to the following address: DIVISION OF AIR QUALITY, 100 W. Water Street, Suite 6A, Dover 19904. To submit comments, for additional information, or for an appointment to inspect the application, please contact Penny Gentry at (302) 739-9402.

NOTICE HAS BEEN GIVEN THAT New Haven Packaging, LLC, requests a construction permit to construct a fluidized bed dryer with a high efficiency cyclone to dry salt at their 612 Christiana Avenue, Wilmington facility. The salt drying process will be permitted to emit 23.20 TPY of particulate matter (PM), 5.50 TPY of particulate matter (PM10), 1.09 TPY of particulate matter (PM2.5), 4.15 TPY of carbon monoxide (CO), 4.94 TPY of nitrogen oxides (NOx), 0.03 TPY of sulfur oxides (SOx), and 0.27 TPY of volatile organic compounds (VOCs) by Permit: APC-2017/0082. A public hearing on any of the above applications will NOT be held unless the Secretary receives a request for a hearing regarding that application by **March 21**. A request for a hearing shall be in writing. The request must also show a familiarity with the application and a reasoned statement of the permit's probable impact For more information visit: http://www.dnrec.delaware.gov/Lists/Public%20Notices/DispForm.aspx?ID=3665&Source=http%3A%2F%2Fwww%2Ednrec%2Edelaware%2Egov%2FLists%2FPublic%2520Notices%2FAllItems%2Easpx&ContentTypeId=0x010034FD6D348B0CF04392485E93FC15AB3A

NOTICE IS HEREBY GIVEN THAT Stonetech, LLC, requests a permit to operate one (1) 200 tons per hour McCloskey Impact Crusher at County Road 323, Georgetown, Sussex County, 3700 Bay Road, Dover, Kent County, 1230 Railcar Avenue, Wilmington, New Castle County, 36393 Sussex Highway, Delmar, Sussex County, US 113 and Road 207, Lincoln, Sussex County, 30548 Thorogood Road, Dagsboro, Sussex County, 26020 River

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Snead, James (DNREC)

From:	Snead, James (DNREC)
Sent:	Wednesday, March 22, 2017 9:47 AM
To:	'Fernandez.Cristina@epa.gov'; gordon.mike@epa.gov; 'cecily.beall@dc.gov'; 'george.aburn@maryland.gov'; 'mgdowd@deq.virginia.gov'; 'william.f.durham@wv.gov'; 'kramamurth@pa.gov'; 'francis.steitz@dep.nj.gov'; Kassahun.Sellassie@phila.gov ;' jgraham@achd.net'
Cc:	Mirzakhalili, Ali (DNREC); Amirikian, Ronald A. (DNREC); Gray, Valerie A. (DNREC); Marconi, Angela D. (DNREC)
Subject:	Delaware DNREC Public Hearing Notice on proposed III(d) State Plan and Regulation for Municipal Solid Waste Landfills (MSWLS)
Attachments:	Proposed MSWL State Plan - 3-12AB.pdf; 1120-30 Proposed 3-12.pdf

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%2F%2Fwww%2Ednrec%2Edelaware%2Egov%2FLists%2FPublic%2520Notices%2FAllItems%2Easpx&ContentTypeId=0x010034FD6D348B0CF04392485E93FC15AB3A

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

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STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES
& ENVIRONMENTAL CONTROL
DIVISION OF AIR QUALITY
STATE STREET COMMONS
100 W. Water Street, Suite 6A
DOVER, DELAWARE 19904

Telephone: (302) 739 - 9402
Fax No.: (302) 739 - 3106

CERTIFICATION
May 30, 2017

I hereby certify that a public hearing was held April 24, 2017, on revisions to the State of Delaware State Implementation Plan to existing **Regulation No. 1120** New Source Performance Standards by incorporating the federal new MSWL requirements in Subpart XXX, by reference, as a new standard (Section 30) that is applicable to municipal solid waste landfills (MSWLs). To satisfy the existing MSWL requirements of Subpart Cf, the applicability of Section 30 will be expanded to include both existing and new MSWLs. Once finalized, Section 30 and the State Plan will be submitted to the EPA for approval. There are three MSWLs in Delaware; all are operated by the Delaware Solid Waste Authority and will be subject to the State Plan and amended regulation.

On August 29, 2016, the EPA promulgated two regulations applicable to MSWLs. The EPA promulgated 40 CFR Part 60 Subpart XXX, which regulates the emissions from new (i.e., newly constructed, reconstructed, or modified) MSWLs and 40 CFR Part 60 Subpart Cf, which requires States to regulate emissions from existing MSWLs. The purpose of these two federal regulations is to reduce volatile organic compounds (VOCs) and methane emissions from MSWLs.

These amendments are to satisfy the US EPA requirements related to air emissions during equipment start-ups and shutdown as required by EPA SIP Call (80 FR 33840). The effective date of these amendments is July 11, 2017.

I further certify that the hearing was held in accordance with the notice required by Subsection 51.102 of 40 CFR 51.

Ali Mirzakhalili, P.E.
Director
Division of Air Quality

Delaware's good nature depends on you!

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Public Hearing for Municipal Solid Waste Landfills

Proposed MSWL State Plan and Section 30 of Regulation 1120

April 24, 2017

Name	Representing	Position	Address	Phone	Fax	E-Mail
Lisa A. Vest	DNREC - OTS	Public Hearing Officer	Delaware DNREC89 Kings Highway Dover , DE 19901	(302) 739-9042		Lisa.Vest@state.de.us
Ron Amirikian	DNREC - Air Quality	Planning Manager	100 W. Water Street Suite 6A Dover , DE 19904	(302) 739-9402	(302) 739-3106	ronald.amirikian@state.de.us
Jim Snead	DNREC - Air Quality	Environmental Engineer	715 Grantham Lane New Castle, DE 19720	(302) 323-4542	(302) 323-4598	jsnead@state.de.us
Valerie Gray	DNREC - Air Quality	Planning Supervisor	715 Grantham Lane New Castle, DE 19720	(302) 323-4542	(302) 323-4598	valerie.gray@state.de.us
Angela Marconi	DNREC - Air Quality	Engineering Manager	715 Grantham Lane New Castle, DE 19720	(302) 323-4542	(302) 323-4598	angela.marconi@state.de.us
Rich Walford	DNREC - Air Quality	Environmental Engineer	100 W. Water Street Suite 6A Dover , DE 19904	(302) 739-9402	(302) 739-3106	joanna.french@state.de.us
Michael Lenkiewicz	DSWA	Landfill Gas Engineer	1107 Willow Grove Rd Felton, DE 19943	(302) 284-8857		mrl@dswa.com
V. Nicole Burkhardt	DSWA	Landfill Gas Engineer	1706 E. 12th Street Wilmington, DE 19809	(302) 764-5385	(302) 764-5386	vngb@dswa.com
Brad Richardson	DNREC - SHWMS	Environmental Scientist	Delaware DNREC 89 Kings Highway Dover, DE 19901	(302) 764-5385		brad.richardson@state.de.us

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Record of Public Hearing

As required by 40 CFR 60.23(e), the complete record of the public hearing, along with a list of the public hearing attendees and the text of the written presentations is located at the Dover Office of the Department's Division of Air Quality. The Department contact to access this information is the Director, Division of Air Quality.

A brief summary of the Department's presentation and the one written submission received follows.

Brief Summary of Presentations or Written Submissions to the Public Hearing Record

Prior to the public hearing

V. Nicole Burkhardt of the Delaware Solid Waste Authority (DSWA) submitted an email to the Department on 4/24/17 at 1215 hours. The email provided newly developed facility information (design capacity and estimated 2016 uncontrolled NMOC emissions) for each of DSWA's 3 landfills. In addition, DSWA inquired as to . . .

- Whether there was any information available on how to use the EPA's electronic reporting systems;
- Whether hard copy reports would still be submitted to the Department; and
- Which datum should be used to identify "locations", when conducting surface emissions monitoring.

The Public Hearing Officer entered the DSWA email into the formal hearing record as DSWA – Exhibit 1.

At the hearing

Jim Snead presented the Department's information during the 4/24/17 public hearing. The Department's presentation included the following:

- The statutory and regulatory backgrounds for the two actions being considered at the 4/24/17 public hearing.
  - The adoption of a federal NSPS (Subpart XXX) requirements applicable to new MSW landfills as Section 30 in Air Regulation 1120 and
  - The development of Delaware's State Plan applicable to existing MSW landfills in accordance with the federal emission guideline (Subpart Cf).
- A description of the mechanism that the Department used in developing the State Plan. The Department plans to adopt new regulatory requirements into Air Regulation 1120, as Section 30, by incorporating federal Subpart XXX by reference. When adopting Subpart XXX, the MSW landfills being subject to Section 30 will be expanded to include both new and existing MSW landfills. Thus, Delaware's 3 existing MSW landfills are subject to Section 30; thereby enabling Delaware to meet the applicability requirements of Subpart Cf.
- The introduction of the Department's 19 exhibits, which illustrated that the Department . . .
  - Has met or exceeded all federal, Delaware, and Departmental statutory and regulatory requirements and
  - Has widely provided public noticing of the 4/24 public hearing and of the publics' opportunity to comment through the Department's use of printed media, electronic mail, State and Departmental electronic bulletin boards, as well as hard copy information available at Division of Air Quality offices.

The Public Hearing Officer entered the Department's exhibits into the formal hearing record as DNREC – Exhibits 1 – 19.

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DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

DIVISION OF AIR QUALITY

Air Quality Management Section

1120 New Source Performance Standards

12/07/1988

1.0 General Provisions

1.1 Applicability. The provisions of this regulation apply to any person responsible for any stationary sources specified herein the construction, reconstruction or modification of which was commenced after August 17, 1971.

1.2 Notification and Record Keeping

1.2.1 Any person subject to the provisions of this regulation shall furnish the Secretary written notification as follows:

1.2.1.1 A notification of the anticipated date of initial startup of an applicable source not more than 60 days nor less than 30 days prior to such date.

1.2.1.2 A notification of the actual date of initial startup of an applicable source within 15 days after such date.

1.2.1.3 A notification of the date construction or reconstruction of an applicable source is commenced postmarked no later than 30 days after such date. This requirement shall not apply in the case of mass-produced facilities, which are purchased in completed form.

1.2.1.4 A notification of any physical or operational change to an existing facility, which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable provision. This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Secretary may request additional relevant information subsequent to this notice.

1.2.1.5 A notification of the date upon which demonstration of the continuous monitoring system performances commences. Notification shall be postmarked not less than 30 days prior to such date.

1.2.2 Any owner or operator subject to the provisions of 1.0 of this regulation shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an applicable source; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.

1.2.3 Each owner or operator required to install a continuous monitoring system shall submit a written report of excess emissions (as defined in applicable provisions) to the Secretary for every calendar quarter. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter and shall include the following information:

1.2.3.1 The magnitude of excessive emissions, any conversion factor or factors used, and the date and time of commencement and completion of each time period of excess emissions.

1.2.3.2 Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the applicable source. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.

1.2.4 Any owner or operator subject to the provisions of 1.0 of this regulation shall maintain a file of all measurements including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by 1.0 of this regulation recorded in a permanent form suitable for inspection. The file shall be retained for at least two years following the date of such measurements, maintenance, reports, and records.

1.3 Monitoring Requirements

1.3.1 Unless otherwise approved by the Secretary or specified in applicable provisions, the requirements of 1.0 of this regulation shall apply to all continuous monitoring systems required under applicable provisions of this regulation.

1.3.2 All continuous monitoring systems and monitoring devices shall be installed and operational prior to conducting performance tests under 1.4 of this regulation. Verification of operational status shall, as minimum, consist of the following:

1.3.2.1 Completion of the conditioning period specified by applicable requirements.

1.3.2.2 For monitoring devices referenced in applicable provisions of this regulation, completion of the manufacturer's written requirements or recommendations for checking the operation or calibration of the device.

1.3.3 During any performance tests required under 1.4 of this regulation or within 30 days thereafter and at such other times as may be required by the Secretary, the person responsible for any applicable source shall conduct continuous monitoring system performance evaluations and furnish the Secretary within 60 days thereof a written report of the results of such tests. These continuous monitoring system performance evaluations shall be conducted in accordance with the following specifications and procedures:

1.3.3.1 Continuous monitoring systems for measuring opacity of emissions shall comply with Performance Specification 1.

1.3.3.2 Continuous monitoring systems for measuring nitrogen oxides emissions shall comply with Performance Specification 2.

1.3.3.3 Continuous monitoring systems for measuring sulfur dioxide emissions shall comply with Performance Specification 2.

1.3.3.4 Continuous monitoring systems for measuring the oxygen content or carbon dioxide content of effluent gases shall comply with Performance Specification 3.

1.3.4 Performance specifications of 1.0 of this regulation are synonymous with those set forth in Appendix B, 40 CFR 60, dated July 1, 1982, which are hereby adopted by reference with the word substitution "Secretary" for "Administrator".

1.3.5 Calibration checks and zero and span adjustments and reporting of data on all continuous monitoring equipment shall be in accordance with methods approved by the Department. Such methods shall as a minimum, comply with Subsection 60.13(d) in 40 CFR 60, dated July 1, 1982, which is hereby adopted by reference with the word substitution "Secretary" for "Administrator".

1.3.6 When the effluents from a single applicable source or two or more applicable sources subject to the same emission standards are combined before being released to the atmosphere, the person may, subject to approval by the Secretary install applicable continuous monitoring systems on each effluent, but otherwise shall install such systems on the combined effluent. When the applicable sources are not subject to the same emission standards, separate continuous monitoring systems shall be installed on each effluent. When the effluent from one applicable source is released to the atmosphere through more than one point, the person shall install applicable continuous monitoring systems on each separate effluent unless the installation of fewer systems is approved by the Secretary.

1.3.7

1.3.7.1 An owner or operator who, prior to September 11, 1974, entered into a binding contractual obligation to purchase specific continuous monitoring system components except as referenced by 1.3.7.1.3 of this regulation shall comply with the following requirements:

1.3.7.1.1 Continuous monitoring systems for measuring opacity of emissions shall be capable of measuring emission levels within +/- 20% with a confidence level of 95%.

1.3.7.1.2 Continuous monitoring systems for measurement of nitrogen oxides or sulfur dioxide shall be capable of measuring emission levels within +/- 20% with a confidence level of 95%.

1.3.7.1.3 Owners or operators of all continuous monitoring systems installed on an applicable source prior to October 6, 1975, are not required to conduct tests under 1.3.7.1.1 or 1.3.7.1.2 of this regulation unless requested by the Secretary.

1.3.7.2 All continuous monitoring systems referenced by 1.3.7.1 of this regulation shall be upgraded or replaced (if necessary) with new continuous monitoring systems, and such improved systems shall be demonstrated to comply with applicable performance specifications under 1.3.3 of this regulation by September 11, 1979.

1.3.8 Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required herein, all continuous monitoring systems shall be in continuous operation and shall meet minimum frequency of operation requirements as follows:

1.3.8.1 All continuous monitoring systems referenced by 1.3.7.1 and 1.3.7.2 of this regulation for measuring opacity of emissions shall complete a minimum of one cycle of operation (sampling, analyzing and data recording) for each successive 10 second period.

1.3.8.2 All continuous monitoring systems referenced by 1.3.7.1 of this regulation for measuring oxides of nitrogen, sulfur dioxide, carbon dioxide, or oxygen shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

1.3.8.3 All continuous monitoring systems referenced by 1.3.7.2 of this regulation, except opacity shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive one-hour period.

1.3.9 All continuous monitoring systems or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the applicable source are obtained. Additional procedures for location of continuous monitoring systems contained in the applicable Performance Specifications of this regulation shall be used.

1.3.10 Owners or operators of all continuous monitoring systems for measuring opacity shall reduce all data to 15-second averages. Consecutive 15-second averages, each less than the applicable standard may be recorded cumulatively. The 15-second averages in excess of the applicable standard shall be recorded for the time of occurrence. Any such averages in excess of the applicable standard shall be reported to the Department as excess emissions.

1.3.11 For systems other than opacity, one-hour averages shall be computed from four or more data points, equally spaced over each one-hour period. Data recorded during periods of system breakdown, repairs, calibration checks, and zero and span adjustments shall not be included in the data averages computed under 1.0 of this regulation. An arithmetic or integrated average of all data may be used. The data output of all continuous monitoring systems may be recorded in reduced or nonreduced form (e.g., ppm pollutant and percent O_2 or lb/million BTU of pollutant). All excess emissions shall be converted into units of standard using the applicable conversion procedures specified in applicable provisions of this regulation. After conversion into units of the standard, the data may be rounded to the same number of significant digits used in applicable provisions of this regulation to specify the applicable standard (e.g., rounded to the nearest 1% opacity).

1.3.12 Upon written application by an owner or operator, the Secretary may approve alternatives to any monitoring procedures or requirements of 1.0 of this regulation including, but not limited to the following:

1.3.12.1 Alternative monitoring requirements when installation of continuous monitoring system or monitoring devices specified by 1.0 of this regulation would not provide accurate measurements due to liquid water or other substances interfering with the effluent gases.

1.3.12.2 Alternative monitoring requirements when the applicable source is infrequently operated.

1.3.12.3 Alternative monitoring requirements to accommodate continuous monitoring systems that require additional measurements to correct for stack moisture conditions.

1.3.12.4 Alternative locations for installing continuous monitoring systems or monitoring devices when the owner or operator can demonstrate that installation at alternative locations will enable accurate and representative measurements.

1.3.12.5 Alternative methods of converting pollutant concentration measurements to units of the standards.

1.3.12.6 Alternative procedures for performing daily checks of zero and span drift that do not involve use of span gases or test cells.

1.3.12.7 Alternative to the A.S.T.M. test methods or sampling procedures specified by any provision of this regulation.

1.3.12.8 Alternative continuous monitoring systems that do not meet the design or performance requirements in Performance Specification 1, but adequately demonstrate a definite and consistent relationship between its measurements and the measurements of opacity by a system complying with the requirements in Performance Specification 1. The Secretary may require that such demonstration be performed by each applicable source.

1.3.12.9 Alternative monitoring requirements when the effluent from a single applicable source or the combined effluent from two or more applicable sources are released to the atmosphere through more than one point.

1.4 Performance Tests

1.4.1 Within 60 days after achieving the maximum production rate at which the applicable source will be operated, but not later than 180 days after initial startup of such facility and at such other times as may be required by the Secretary, the person responsible for such source shall conduct performance test or tests and furnish the Secretary a written report of the results of such performance test or tests. The Department may conduct or contract for the conduct of a performance test whenever it concludes that such test is necessary to determine compliance.

1.4.2 Performance tests shall be conducted and data reduced in accordance with the test methods and procedures contained in each applicable provision unless the Secretary (1) specifies or approves, in specific cases, the use of a reference method with minor changes in methodology, (2) approves the use of an equivalent method, (3) approves the use of an alternative method the results of which he has determined to be adequate for indicating whether a specific source is in compliance, or (4) waives the requirement for performance tests because the owner or operator of a source has demonstrated by other means to the Secretary's satisfaction that the applicable source is in compliance with the standard.

1.4.3 Performance tests shall be conducted on representative performance of the applicable source. The Secretary may specify additional operating conditions to be tested. The person responsible for the applicable source shall make available to the Department a record of those operating parameters, which the Secretary determines appropriate to establish representative performance of the source. Operations during period of startup, shutdown, and malfunction shall not constitute representative conditions of performance tests unless otherwise specified in the applicable standard. The person responsible for an applicable source shall provide the Secretary 30 days prior notice of the performance test to afford the Secretary the opportunity to have an observer present.

1.4.4 The person responsible for an applicable source shall provide or cause to be provided, performance testing facilities as follows:

1.4.4.1 Sampling ports adequate for test methods applicable to such facility.

1.4.4.2 Safe sampling platform or platforms.

1.4.4.3 Safe access to sampling platform or platforms.

1.4.4.4 Utilities for sampling and testing equipment.

1.4.5 Each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standards. For the purpose of determining compliance, the arithmetic mean of results of the three runs shall apply.

1.5 Compliance with Standard and Maintenance Requirements

1.5.1 Compliance with standards in the regulation, other than opacity standards, shall be determined only by performance test established by 1.4 of this regulation.

1.5.2 Compliance with standards in this regulation shall be determined by Reference Methods 1 through 12 and 15 through 25 set forth in Appendix A, 40 CFR Part 60, revised July 1, 1982, which are hereby adopted by reference. Where the person responsible for the applicable source can provide evidence acceptable to the Secretary that the presence of uncombined water is the only reason for failure to meet the opacity standard such failure shall not be a violation of the standard.

1.5.3 Compliance with opacity standards in this regulation shall be determined by conducting observations at consecutive 15-second intervals for a period of not less than one hour except that the observations may be discontinued whenever a violation of the applicable standard is recorded. The results of continuous monitoring by transmissometer which indicate that the opacity at the time visual observations were made was not in excess of the standard are probative but not conclusive evidence of the actual opacity of an emission, provided that the source shall meet the burden of proving that the instrument used meets, at the time of the alleged violation, Performance Specification 1, has been properly maintained and calibrated and that the resulting data have not been tampered with in any way.

The additional procedures, qualifications and testing to be used for visually determining the opacity of emissions shall be those specified in Section 2 and 3 (except for Section 2.5 and the second sentence of Section 2.4) of Reference Method 9 set forth in Appendix A, 40 CFR Part 60, revised July 1, 1982, which are hereby adopted by reference.

1.5.4 The opacity standards set forth in this regulation shall apply at all times including periods of startup and shutdown unless the emissions during startup and shutdown are governed by an operation permit.

1.5.5 At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any applicable source including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Secretary which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

1.6 Circumvention. No owner or operator subject to the provisions of 1.0 of this regulation shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission, which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous dilutants to achieve compliance with an opacity standard or with a standard, which is based on the concentration of a pollutant in the gases discharged to the atmosphere.

1.7 General Control Device Requirements. The provisions of Subpart A - General Provisions, Subsection 60.18 of Part 60, Title 40 of the Code of Federal Regulations, July 1, 1986 are hereby adopted by reference with the following changes:

1.7.1 The words "Act" and "Subpart A" are replaced by the words 7 **DE Admin. Code** 1101, DEFINITIONS AND ADMINISTRATIVE PRINCIPLES of the State of Delaware Regulations Governing the Control of Air Pollution."

1.7.2 Any subsections, from Title 40 of the Code of Federal Regulations, which are referenced in the text of the preceding adoption, are also adopted as part of this regulation.

04/18/1983

2.0 Standards of Performance for Fuel Burning Equipment

2.1 Applicability. Except as provided in 9.0 and 11.0 of this regulation, the provisions of 2.0 of this regulation are applicable to any fuel burning equipment of more than 250 million BTU per hour heat input, which is the applicable source. Any change to existing fuel burning equipment to accommodate the use of combustible fuels other than fossil fuels as defined herein shall not bring that equipment under the applicability of 2.0 of this regulation.

2.2 Standard for Particulate Matter. On and after the date on which the initial performance test is completed no person subject to the provisions of 2.0 of this regulation shall discharge or cause the discharge into the atmosphere of particulate matter, which is:

2.2.1 In excess of 0.10 lb. per million BTU heat input (0.18 grams per million calories heat input).

2.2.2 Greater than 20% opacity, except that a maximum of 40% opacity shall be permissible for not more than two minutes in any hour.

2.3 Standard for Sulfur Dioxide

2.3.1 On and after the date on which the initial performance test is completed with respect to a new stationary source in either Kent or Sussex Counties, the construction, reconstruction, or modification of which was commenced on or after August 17, 1971, no person subject to the provisions of 2.0 of this regulation shall discharge or cause the discharge into the atmosphere of sulfur dioxide in excess of 1.20 pounds per million BTU heat input (2.1 g. per million cal).

2.3.2 Compliance shall be based on the measured quantity of sulfur dioxide emitted divided by the total heat input for all fossil fuels burned, including gaseous fuels.

2.4 Standard for Nitrogen Oxides

2.4.1 On and after this date on which the initial performance test is completed no person subject to the provisions of 2.0 of this regulation shall discharge or cause the discharge into the atmosphere of nitrogen oxides in excess of:

2.4.1.1 0.20 lb per million BTU heat input (0.36 g. per million cal.), expressed as NO_2, when gaseous fossil fuel is burned.

2.4.1.2 0.30 lb per million BTU heat input (0.54 g. per million cal.), expressed NO_2 when liquid fossil fuel is burned.

2.4.1.3 0.70 lb. per million BTU heat input (1.26 g. per million cal.), expressed NO_2, when solid fossil fuel is burned.

2.4.2 When different fossil fuels are burned simultaneously in any combination the applicable standard shall be determined by proration using the following formula:

$$\frac{X(0.20)+Y(0.30)+Z(0.70)}{X+Y+Z} \qquad (2\text{-}1)$$

where:

X is the percent of total heat input derived from gaseous fossil fuel and
Y is the percent of total heat input derived from liquid fuel and
Z is the percent of total heat input derived from solid fuel.

2.5 Emission and Fuel Monitoring

2.5.1 A continuous monitoring system for measuring the opacity of emissions, except where gaseous fuel is the only fuel burned, shall be installed, calibrated, maintained, and operated by the person responsible for the applicable sources. The continuous monitoring system shall be spanned at 80% or 90% or 100% opacity.

2.5.2 A continuous monitoring system for measuring sulfur dioxide emissions, shall be installed, calibrated, maintained and operated by the person responsible for the applicable source except where gaseous fuel is the only fuel burned or where low sulfur fuels are used to achieve compliance with the standard under 2.3 of this regulation and fuel analyses under 2.5.2.2 of this regulation are conducted. The following procedures shall be used for monitoring sulfur dioxide emissions:

2.5.2.1 For applicable sources which are continuous monitoring systems, Reference Method 6 shall be used for conducting monitoring system performance evaluations under 1.3.3 of this regulation. The pollutant gas used to prepare calibration gas mixtures under 2.1 of this regulation, Performance Specification 2 and for calibration checks under 1.3.4 of this regulation shall be sulfur dioxide SO_2. The span value for the continuous monitoring system shall be determined as follows:

2.5.2.1.1 For applicable sources firing liquid fossil fuel the span value shall be 1000 ppm sulfur dioxide.

2.5.2.1.2 For applicable sources firing solid fossil fuel the span value shall be 1500 ppm sulfur dioxide.

2.5.2.1.3 For applicable sources firing fossil fuels in any combination, the span value shall be determined by computation in accordance with the following formula and rounding to the nearest 500 ppm sulfur dioxide:

$$1000Y + 1500Z \qquad (2\text{-}2)$$

where:

Y = the fraction of total heat input derived from liquid fossil fuel, and

Z = the fraction of total heat input derived from solid fossil fuel.

2.5.2.1.4 For applicable sources which fire both fossil fuels and non-fossil fuels, the span value shall be subject to the Secretary's approval.

2.5.2.2 For applicable sources using flue gas desulfurization systems to achieve compliance with sulfur dioxide standards under 2.3 of this regulation, the continuous monitoring system for measuring sulfur dioxide emissions shall be located downstream of the desulfurization system and in accordance with requirements in Performance Specification 2 and, other requirements of the Secretary which as a minimum shall be those specified in Section 60.45(b)(3) of 40 CFR 60, dated July 1, 1982.

2.5.3 A continuous monitoring system for the measurement of nitrogen oxides emissions shall be installed, calibrated, maintained, and operated by the responsible person except for any applicable source demonstrated during performance tests under 1.4 of this regulation to emit nitrogen oxides pollutants at a level 30% or more below applicable standards under 2.4 of this regulation. The following procedures shall be used for determining the span and for calibrating nitrogen oxides continuous monitoring systems:

2.5.3.1 The span value shall be determined as follows:

2.5.3.1.1 For applicable sources firing gaseous fossil fuel the span value shall be 500 ppm nitrogen oxides.

2.5.3.1.2 For applicable sources firing liquid fossil fuel the span value shall be 500 ppm nitrogen oxides.

2.5.3.1.3 For applicable sources firing solid fossil fuel the span value shall be 1000 ppm nitrogen oxides.

2.5.3.1.4 For applicable sources firing fossil fuels in any combination, the span value shall be determined by computation in accordance with the following formula and rounding to the nearest 500 ppm nitrogen oxides:

$$500(X + Y) + 1000Z \qquad (2\text{-}3)$$

where:

X = the fraction of total heat input derived from gaseous fossil fuel;

Y = the fraction of total heat input derived from liquid fossil fuel; and

Z = the fraction of the total heat input derived from solid fossil fuel.

2.5.3.1.5 For applicable sources which fire both fossil fuels and non-fossil fuels, the span value shall be subject to the Secretary's approval.

2.5.3.2 The pollutant gas used to prepare calibration gas mixtures under 2.1 of this regulation, Performance Specification 2 and for calibration checks under 1.3.4 of this regulation shall be nitric oxide (NO). Reference Method 7 shall be used for conducting monitoring system performance evaluations under 1.3.3 of this regulation.

2.5.4 A continuous monitoring system for measuring either oxygen or carbon dioxide in the flue gases shall be installed, calibrated, maintained, and operated by the person responsible for the applicable source.

2.5.5 Any person required to install continuous monitoring systems under 2.5.2 and 2.5.3 of this regulation shall for each pollutant monitored use the applicable conversion procedure for the purpose of converting continuous monitoring data into the units of the applicable standards. The applicable conversion procedures shall be those set forth in paragraphs (e) and (f) of Section 60.45 of 40 CFR 60, dated July 1, 1982.

2.5.6 For the purpose of reports required under 1.2 of this regulation, periods of excess emissions that shall be reported are defined as follows:

2.5.6.1 Sulfur dioxide - Excess emissions for applicable sources are defined as follows:
Any three-hour period during which the average emissions (arithmetic average of three continuous one–hour periods) of sulfur dioxide as measured by a continuous monitoring system exceed the applicable standard under 2.3 of this regulation.

2.5.6.2 Nitrogen Oxides - Excess emission for applicable sources using a continuous monitoring system for measuring nitrogen oxides are defined as any three-hour period during which the average emissions (arithmetic average of three continuous one–hour periods) exceed the applicable standards under 2.4 of this regulation.

2.6 Test Methods and Procedures

2.6.1 All performance tests shall be conducted while the applicable source is operating at or above the maximum steam production rate at which such facility will be operated and while fuels or combination of fuels representative of normal operation are being burned and under such other relevant conditions as the Secretary shall specify based on representative performance of the applicable source.

2.6.2 The reference methods in Appendix A of 40 CFR Part 60, except as provided in 1.4.2 of this regulation, shall be used to determine compliance with the standards prescribed herein as follows:

2.6.2.1 Method 1 for selection of sampling site and sample traverses.

2.6.2.2 Method 3 for gas analysis to be used when applying Reference Methods 5, 6 and 7.

2.6.2.3 Method 5 for concentration of particulate matter and the associated moister content.

2.6.2.4 Method 6 for concentration of SO_2 and

2.6.2.5 Method 7 for concentration of NO_x.

2.6.3 For method 5, the sampling time for each run shall be at least 60 minutes and the minimum sample volume shall be 0.85 dscm (30.0 dscf), except that smaller sampling times or volumes, when necessitated by process variables or other factors may be approved by the Secretary. The probe and filter holder heating systems in the sampling train shall be set to provide a gas temperature no greater than 160°C (320°F).

2.6.4 For Methods 6 and 7, the sampling site shall be the same as that for determining volumetric flow rate. The sampling point in the duct shall be at the centroid of the cross-section or at a point no closer to the walls than one m (3.28 ft.).

2.6.5 For Method 6, the minimum sampling times shall be 20 minutes and the minimum sample volume shall be 0.02 dscm (0.71 dscf). The sample shall be extracted at a rate proportional to the gas velocity at the sampling point. The arithmetic average of two samples shall constitute one run. Samples shall be taken at approximately 30-minute intervals.

2.6.6 For Method 7, each run shall consist of at least four grab samples taken at approximately 15-minute intervals. The arithmetic mean of the samples shall constitute the run value.

2.6.7 For each run the emissions expressed in g/million cal (lb./million BTU) shall be determined by the following procedure:

$$E = C \times F \times \frac{(20.9)}{(20.9 - \%O_2)} \qquad (2\text{-}4)$$

where:

E = pollutant emission, g/million cal (lb/million BTU);

C = pollutant concentration g/dscm (lb/dscf), determined by Methods 5, 6 and 7;

F = Factor to be determined by Methods approved by the Secretary.

$\%O_2$ = oxygen content by volume (expressed as %), dry basis. Percent Oxygen shall be determined by using the integrated or grab sampling and analysis procedures of Method 3 as applicable. The sample shall be obtained as follows:

2.6.7.1 For determination of sulfur dioxide and nitrogen oxides emissions, the oxygen sample shall be obtained simultaneously at the same point in the duct as used to obtain the samples for Methods 6 and 7 determinations, respectively. For Method 7, the oxygen sample shall be obtained using the grab sampling and analysis procedures of Method 3.

2.6.7.2 For determination of particulate emissions, the oxygen sample shall be obtained simultaneously by traversing the duct at the same sampling location used for each run of Method 5 under 2.6.3 of this regulation. Method 1 shall be used for selection of the number of traverse points except that no more than 12 sample points are required.

2.6.8 When combinations of fossil fuels are fired, the heat input, expressed in cal/hr (BTU/hr), shall be determined during each testing period by multiplying the gross calorific value of each fuel fired by the rate of each fuel burned. Gross calorific value shall be determined in accordance with A.S.T.M. methods D2015-66(72) (solid fuels.) D240-64(73) (liquid fuels), or D1826-64(70) (gaseous fuels) as applicable. The rate of fuels burned during each testing period shall be determined by suitable methods and shall be confirmed by a material balance over the steam generation system.

04/18/1983

3.0 Standards of Performance for Nitric Acid Plants

3.1 Applicability. The provisions of 3.0 of this regulation are applicable to each nitric acid production unit, which is the applicable source.

3.2 Standard for Nitrogen Oxides. On and after the date on which the performance test is completed no person subject to the provisions of 3.0 of this regulation shall discharge or cause the discharge into the atmosphere of nitrogen oxides which are:

3.2.1 In excess of 3.0 lbs. per ton of acid produced (1.5 kg. per metric ton) expressed as HNO_3.

3.2.2 10% opacity or greater.

3.3 Emission Monitoring

3.3.1 A continuous monitoring system for the measurement of nitrogen oxides shall be installed, calibrated, maintained, and operated by the person responsible for the applicable source. The pollutant gas used to prepare calibration gas mixtures under 2.1 of this regulation, Performance Specification 2 and for calibration checks under 1.3.5 of this regulation shall be nitrogen dioxide NO_2. The span shall be set at 500 ppm of nitrogen dioxide. Reference Method 7 shall be used for conducting monitoring system performance evaluations under 1.3.3 of this regulation.

3.3.2 The responsible person shall establish a conversion factor, approved by the Department for the purpose of converting monitoring data into units of the applicable standard (kg/metric ton, lb/short ton). The conversion factor shall be established by measuring emissions with the applicable reference method tests. Using only that portion of the continuous monitoring emission data that represents emission measurements concurrent with the reference method test periods, the conversion factor shall be determined by dividing the reference method test data averages by the monitoring data averages to obtain a ratio expressed in units of the monitoring data, i.e., kg/metric ton per ppm (lb/short ton per ppm). The conversion factor shall be reestablished during any performance test under 1.4 of this regulation or any continuous monitoring system performance evaluation under 1.3.3 of this regulation.

3.3.3 The responsible person shall record the daily production rate hours of operation.

3.3.4 For the purpose of reports required under 1.2.3 of this regulation, periods of excess emissions that shall be reported are defined as any three-hour period during which the average nitrogen oxides emissions (arithmetic average of three continuous one-hour periods) as measured by a continuous monitoring system exceed the standard under 3.2.1 of this regulation.

3.4 Test Methods and Procedures. All performance tests shall be conducted while the applicable source is operating at or above the maximum acid production rate at which such facility will be operated and under such other relevant conditions as the Secretary shall specify based on representative performance of the applicable source.

12/07/1988

4.0 Standards of Performance for Storage Vessels for Petroleum Liquid for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 18, 1978

The provisions of 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, of

Part 60, Title 40 of the Code of Federal Regulations, July 1, 1986 and amended in the Federal Register on April 8, 1987, are hereby adopted by reference.

4.1 The words "Act" and "Subpart A" are replaced by the words 7 **DE Admin. Code** 1101, DEFINITIONS AND ADMINISTRATIVE PRINCIPLES of the State of Delaware Regulations Governing the Control of Air Pollution".

4.2 Any subsections, from Title 40 of the Code of Federal Regulations, which are referenced in the text of the preceding adoption are also adopted as part of this regulation.

04/18/1983

5.0 Standards of Performance for Asphalt Concrete Plants

5.1 Applicability. The provisions of 5.0 of this regulation apply to each asphalt concrete plant, which is the applicable source.

5.2 Standard for Particulate Matter. On and after the date on which the initial performance test is completed no person subject to the provisions of 5.0 of this regulation shall discharge or cause the discharge into the atmosphere from any applicable source any such gases which:

5.2.1 Contain particulate matter in excess of 0.04 grain per dry standard cubic foot.

5.2.2 Exhibit 20% opacity, or greater.

5.3 Test Methods and Procedures. In addition to the test methods specified in Appendix A of 40 CFR Part 60, the following procedures are applicable:

5.3.1 Method 5 for the concentration of particulate matter and the associated moisture content.

5.3.2 Method 1 for sample and velocity traverses.

5.3.3 Method 2 for velocity and volumetric flow rate.

5.3.4 Method 3 for gas analysis.

5.3.5 For Method 5, the sampling time for each run shall be at least 60 minutes and the sampling rate shall be at least 0.9 dscm/hr. (0.53 dscf/min.), except that shorter sampling times, when necessitated by process variables or other factors, may be approved by the Secretary.

04/18/1983

6.0 Standards of Performance for Incinerators

6.1 Applicability. The provisions of 6.0 of this regulation are applicable to each incinerator of more than 3,000 pounds per hour charging rate, which is the applicable source.

6.2 Standard Particulate Matter. On and after the date on which the performance test required to be conducted is completed, no person responsible for the applicable source shall cause to be discharged into the atmosphere any gases which contain particulate matter in excess of 0.18 g./dscm (0.08 grain/dscf) corrected to 12% CO_2.

6.3 Emission Monitoring. The person responsible for any incinerator subject to the provisions of 6.0 of this regulation shall record the hourly charging rates and hours of operation.

04/18/1983

7.0 Standards of Performance for Sewage Treatment Plants

7.1 Applicability. The applicable source to which the provisions of 7.0 of this regulation apply is each incinerator which burns the sludge produced by municipal sewage treatment facilities.

7.2 Standard for Particulate Matter. On and after the date on which the performance test required to be conducted by 1.4 of this regulation is completed, no person responsible for any sewage sludge incinerator subject to the provisions of 7.0 of this regulation shall discharge or cause the discharge into the atmosphere of:

7.2.1 Particulate matter at a rate in excess of 0.65 g/kg dry sludge input (1.30 lb/ton dry sludge input).

7.2.2 Any gases which exhibit 20% opacity or greater.

7.3 Emission Monitoring. The person responsible for any sludge incinerator subject to the provisions of 7.0 of this regulation shall:

7.3.1 Install, calibrate, maintain and operate a flow measuring device which can be used to determine either the mass of volume of sludge charged to the incinerator. The flow measuring device shall have an accuracy of +/-5.0% over its operating range.

7.3.2 Provide access to the sludge charged so that a well–mixed representative grab sample of the sludge can be obtained.

7.4 Test Methods and Procedures

7.4.1 The reference methods, except as provided for in 1.4.2 of this regulation, to be used to determine compliance with the standards prescribed in 7.2 of this regulation, are as follows:

7.4.1.1 Method 5 for concentration of particulate matter and associated moisture content,

7.4.1.2 Method 1 for sample and velocity traverses,
7.4.1.3 Method 2 for volumetric flow rate, and
7.4.1.4 Method 3 for gas analysis.

7.4.2 For Method 5, the sampling time for each run shall be at least 60 minutes and the sampling rate shall be at least 0.015 dscm/min (0.53 dscf/min.), except that shorter sampling times, when necessitated by process variable or other factors, may be approved by the Secretary.

7.4.3 Dry sludge charging rate shall be determined by methods set forth in Section 60.154 of 40 CFR 60, dated July 1, 1982, which are hereby adopted by reference.

04/18/1983

8.0 Standards of Performance for Sulfuric Acid Plants

8.1 Applicability. The provisions of 8.0 of this regulation are applicable to each sulfuric acid plant, which is the applicable source.

8.2 Standard for Sulfur Dioxide. On and after date on which the performance test required to be conducted by 1.4 of this regulation is completed, no person subject to the provisions of 8.0 of this regulation shall cause to be discharged into the atmosphere from any applicable source any gases which contain sulfur dioxide in excess of two kg per metric ton of acid produced (four lbs per ton), the production being expressed as 100% H_2SO_4.

8.3 Standard for Acid Mist. On and after the date on which the performance test required to be conducted by 1.4 of this regulation is completed, no person subject to the provisions of 8.0 of this regulation shall cause to be discharged into the atmosphere from any applicable source any gases which

8.3.1 Contain acid mist, expressed as H_2SO_4, in excess of 0.075 kg per metric ton of acid produced (0.15 lb per ton), the production being expressed as 100% H_2SO_4.

8.3.2 Exhibit 10% opacity, or greater.

8.4 Emission Monitoring

8.4.1 A continuous monitoring system for the measurement of sulfur dioxide shall be installed, calibrated, maintained, and operated by the person responsible for the applicable source. The pollutant gas used to prepare calibration gas mixtures under 2.1 of this regulation, Performance Specification 2 and for calibration checks under 1.3.5 of this regulation shall be sulfur dioxide (SO_2). Reference Method 8 shall be used for conducting monitoring system performance evaluation under 1.3.3 of this regulation except that only the sulfur dioxide portion of the Method 8 results shall be used. The span shall be set at 1,000 ppm of sulfur dioxide.

8.4.2 The responsible person shall establish a conversion factor for the purpose of converting monitoring data into units of the applicable standard (kg/metric ton, lb/short ton). The conversion factor shall be determined, as a minimum, three times daily by measuring the concentration of sulfur dioxide entering the converter using suitable methods (e.g., the Reich test, National Air Pollution Control Administration Publication No. 999-AP-13) and calculating the appropriate conversion factor for each eight -hour period as follows:

$$C_F = k\left[\frac{1{,}000 - 0.015r}{r - s}\right] \qquad (8\text{-}1)$$

where:

C_F = conversion factor (kg/metric ton per ppm, lb/short ton per ppm).

k = constant derived from material balance.

For determining C_F in metric units, k = 0.0653.

For determining C_F in English units, k = 0.1306.

r = percentage of sulfur dioxide by volume entering the gas converter.

Appropriate corrections must be made for air injection plants subject to the Secretary's approval.

s = percentage of sulfur dioxide by volume in the emissions to the atmosphere determined by the continuous monitoring system required under 8.4.1 of this regulation.

8.4.3 The responsible person shall record all conversion factors and values under 8.4.2 of this regulation from which they are computed (i.e., C_F, r, and s).

8.4.4 For the purpose of reports under 1.2.3 of this regulation periods of excess emissions shall be all three-hour periods (or the arithmetic average of three consecutive one-hour periods) during which the integrated average sulfur dioxide emissions exceed the applicable standards under 8.2 of this regulation.

8.5 Test Methods and Procedures

8.5.1 All performance tests shall be conducted while the applicable source is operating at or above the maximum acid production rate at which such source will be operated and under such other relevant conditions as the Secretary shall specify based on representative performance of the applicable source.

8.5.2 The reference methods in Appendix A of 40 CFR Part 60, except as provided for in 1.4.2 of this regulation, shall be used to determine compliance with the standards prescribed in 8.2 and 8.3 of this regulation as follows:

8.5.2.1 Method 8 for the concentrations of SO_2 and acid mist;

8.5.2.2 Method 1 for sample and velocity traverses;

8.5.2.3 Method 2 for velocity and volumetric flow rate; and

8.5.2.4 Method 3 for gas analysis.

8.5.3 The moisture content can be considered to be zero. For Method 8 the sampling time for each run shall be at least 60 minutes and the minimum sample volume shall be 1.15 dscm (40.6 dscf) except that smaller sampling times or sample volumes, when necessitated by process variables or other factors, may be approved by the Secretary.

8.5.4 Acid production rate, expressed in metric tons per hour of 100% H_2SO_4, shall be determined during each testing period by suitable methods and shall be confirmed by a material balance over the production system.

8.5.5 Acid mist and sulfur dioxide emissions, expressed in g/metric ton of 100% H_2SO_4, shall be determined by dividing the emission rate in g/hr by the acid production rate. The emission rate shall be determined by the equation, g/hr = Qs x C, where Qs = volumetric flow rate of the effluent in dscm/hr as determined in accordance with 8.5.2.3 of this regulation, and C = acid mist and SO_2 concentrations in g/dscm as determined in accordance with 8.5.2.1 of this regulation.

04/18/1983

9.0 Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced after September 18, 1978

9.1 Applicability and Designation of Affected Facility

9.1.1 Any facility covered under 9.0 of this regulation is not subject to the provisions of 2.0 of this regulation. The affected facility to which 9.0 of this regulation applies is each electric utility steam generating unit:

9.1.1.1 That is capable of combusting more than 73 megawatts (250 million BTU/hr) heat input of fossil fuel (either alone or in combination with any other fuel); and

9.1.1.2 For which construction or modification is commenced after September 18, 1978.

9.1.2 The 9.0 of this regulation applies to electric utility combined cycle gas turbines that are capable of combusting more than 73 megawatts (250 million BTU/hour) heat input of fossil fuel in the steam generator. Only emissions resulting from combustion of fuels in the steam generating unit are subject to 9.0 of this regulation. (The gas turbine emissions are subject to Subpart GG, 40 CFR Part 60).

9.1.3 Any change to an existing fossil-fuel-fired steam generating unit to accommodate the use of combustible materials, other than fossil fuels, shall not bring the unit under the applicability of 9.0 of this regulation.

9.1.4 Any change to an existing steam generating unit originally designed to fire gaseous or liquid fossil fuels, to accommodate the use of any other fuel (fossil or nonfossil) shall not bring that unit under the applicability of 9.0 of this regulation.

9.2 [Reserved]

9.3 [Reserved]

9.4 [Reserved]

9.5 [Reserved]

9.6 [Reserved]

9.7 [Reserved]

9.8 [Reserved]

9.9 [Reserved]

9.10 [Reserved]

9.11 Definitions

As used in 9.0 of this regulation, all terms not defined herein shall have the meaning given them in the Clean Air Act and in 7 **DE Admin. Code** 1101.

"Anthracite" means coal that is classified as anthracite according to the American Society of Testing and Materials' (ASTM) Standard Specification for Classification of Coals by Rank D388-66.

"Available purchase power" means the lesser of the following:

(a) The sum of available system capacity in all neighboring companies.

(b) The sum of the rated capacities of the power interconnection devices between the principal company and all neighboring companies, minus the sum of the electric power load on these interconnections.

(c) The rated capacity of the power transmission lines between the power interconnection devices and the electric generating units (the unit in the principal company that has the malfunctioning flue gas desulfurization system and the unit or units in the neighboring company supplying replacement electrical power) less the electric power load on these transmission lines.

"Available system capacity" means the capacity determined by subtracting the system load and the system emergency reserves from the net system capacity.

"Boiler operating day" means a 24-hour period during which fossil fuel is combusted in a steam generating unit for the entire 24 hours.

"Coal refuse" means waste products of coal mining, physical coal cleaning, and coal preparation operations (e.g. culm, gob, etc.) containing coal, matrix material, clay, and other organic and inorganic material.

"Combined cycle gas turbine" means a stationary turbine combustion system where heat from the turbine exhaust gases is recovered by a steam generating unit.

"Electric utility steam generating unit" means any steam electric generating unit that is constructed for the purpose of supplying more than one-third of its potential electric output capacity and more than 25 MW electrical output to any utility power distribution system for sale. Any steam supplied to a steam distribution system for the purpose of providing steam to a steam-electric generator that would produce electrical energy for sale is also considered in determining the electrical energy output capacity of the affected facility.

"Electric utility company" means the largest interconnected organization business, or governmental entity that generates electric power for sale (e.g., a holding company with operating subsidiary companies).

"Emergency condition" means that period of time when:

(a) The electric generation output of an affected facility with a malfunctioning flue gas desulfurization system cannot be reduced or electrical output must be increased because:

  (1) All available system capacity in the principal company interconnected with the affected facility is being operated, and

  (2) All available purchase power interconnected with the affected facility is being obtained, or

(b) The electric generation demand is being shifted as quickly as possible from an affected facility with a malfunctioning flue gas desulfurization system to one or more electrical generating units held in reserve by the principal company or by a neighboring company, or

(c) An affected facility with a malfunctioning flue gas desulfurization system becomes the only available unit to maintain a part or all of the principal company's system emergency reserves and the unit is operated in spinning reserve at the lowest practical electric generation load consistent with not causing significant physical damage to the unit. If the unit is operated at a higher load to meet load demand, an emergency condition would not exist unless the conditions under (a) of this definition apply.

"Electric utility combined cycle gas turbine" means any combined cycle gas turbine used for electric generation that is constructed for the purpose of supplying more than one -third of its potential electric output capacity and more than 25 MW electrical output to any utility power distribution system for sale. Any steam distribution system that is constructed for the purpose of providing steam to a steam electric generator that would produce electrical power for sale is also considered in determining the electrical energy output capacity of the affected facility.

"Fossil fuel" means natural gas, petroleum, coal, and any form of solid, liquid, or gaseous fuel derived from such material for the purpose of creating useful heat.

"Interconnected" means that two or more electric generating units are electrically tied together by a network of power transmission lines, and other power transmission equipment.

"Lignite" means coal that is classified as lignite A or B according to the American Society of Testing and Materials' (ASTM) Standard Specification for Classification of Coals by Rank D388-66.

"Neighboring company" means any one of those electric utility companies with one or more electric power interconnections to the principal company and which have geographically adjoining service areas.

"Net system capacity" means the sum of the net electric generating capability (not necessarily equal to rated capacity) of all electric generating equipment owned by an electric utility company (including steam generating

units, internal combustion engines, gas turbines, nuclear units, hydroelectric units, and all other electric generating equipment) plus firm contractual purchases that are interconnected to the affected facility that has the malfunctioning flue gas desulfurization system. The electric generating capability of equipment under multiple ownership is prorated based on ownership unless the proportional entitlement to electric output is otherwise established by contractual arrangement.

"Potential combustion concentration" means the theoretical emissions (nanograms per joule, ng/J or lb/million BTU heat input) that would result from combustion of a fuel in an uncleaned state without emission control systems) and:

(a) For particulate matter, is:
  (1) 3,000 ng/J (7.0 lb/million BTU) heat input for solid fuel; and
  (2) 75 ng/J (0.17 lb./million BTU) heat input for liquid fuels.
(b) For sulfur dioxide, is determined under 9.18.2 of this regulation.
(c) For nitrogen oxides, is:
  (1) 290 ng/J (0.67 lb/million BTU) heat input for gaseous fuels;
  (2) 310 ng/J (0.72 lb/million BTU) heat input for liquid fuels; and
  (3) 990 ng/J (2.30 lb/million BTU) heat input for solid fuels.

"Potential electrical output capacity" is defined as 33% of the maximum design heat input capacity of the steam generating unit (e.g., a steam generating unit with a 100-MW (340 million BTU/hr) fossil-fuel heat input capacity would have a 33-MW potential electrical output capacity). For electric utility combined cycle gas turbines the potential electrical output capacity is determined on the basis of the fossil-fuel firing capacity of the steam generator exclusive of the heat input and electrical power contribution by the gas turbine.

"Principal company" means the electric utility company or companies which own the affected facility.

"Resource recovery unit" means a facility that combusts more than 75% non-fossil fuel on a quarterly (calendar) heat input basis.

"Solid-derived fuel" means any solid, liquid, or gaseous fuel derived from solid fuel for the purpose of creating useful heat and includes, but is not limited to, solvent refined coal, liquified coal, and gasified coal. "24-hour period" means the period of time between 12:01 a.m. and 12:00 midnight.

"Spare flue gas desulfurization system module" means a separate system of sulfur dioxide emission control equipment capable of treating an amount of flue gas equal to the total amount of flue gas generated by an affected facility when operated at maximum capacity divided by the total number of nonspare flue gas desulfurization modules in the system.

"Spinning reserve" means the sum of the unutilized net generating capability of all units of the electric utility company that are synchronized to the power distribution system and that are capable of immediately accepting additional load. The electric generating capability of equipment under multiple ownership is prorated based on ownership unless the proportional entitlement to electric output is otherwise established by contractual arrangement.

"Steam generating unit" means any furnace, boiler, or other device used for combusting fuel for the purpose of producing steam (including fossil-fuel-fired steam generators associated with combined cycle gas turbines; nuclear steam generators are not included).

"Subbituminous coal" means coal that is classified as subbituminous A, B, or C according to the American Society of Testing and Materials' (ASTM) Standard Specification for Classification of Coals by Rank D388-66.

"System load" means the entire electric demand of an electric utility company's service area interconnected with the affected facility that has the malfunctioning flue gas desulfurization system plus firm contractual sales to other electric utility companies. Sales to other electric utility companies (e.g., emergency power) not on a firm contractual basis may also be included in the system load when no available system capacity exists in the electric utility company to which the power is supplied for sale.

"System emergency reserves" means an amount of electric generating capacity equivalent to the rated capacity of the single largest electric generating unit in the electric utility company (including steam generating units, internal combustion engines, gas turbines, nuclear units, hydroelectric units, and all other electric generating equipment) which is interconnected with the affected facility that has the malfunctioning flue gas desulfurization system. The electric generating capability of equipment under multiple ownership is prorated based on ownership unless the proportional entitlement to electric output is otherwise established by contractual arrangement.

9.12 Standard for Particulate Matter

9.12.1 On and after the date on which the performance test required to be conducted under 1.4 of this regulation is completed, no owner or operator subject to the provisions of 9.0 of this regulation shall cause to be

discharged into the atmosphere from any affected facility any gases which contain particulate matter in excess of:

9.12.1.1 13 ng/J (0.03 lb/million BTU) heat input derived from the combustion of solid, liquid, or gaseous fuel;

9.12.1.2 1% of the potential combustion concentration (99% reduction) when combusting solid fuel; and

9.12.1.3 30% of potential combustion concentration (70% reduction) when combusting liquid fuel.

9.12.2 On and after the date the particulate matter performance test required to be conducted under 1.4 of this regulation is completed, no owner or operator subject to the provisions of 9.0 of this regulation shall cause to be discharged into the atmosphere from any affected facility any gases which exhibit greater than 20% opacity except for one six-minute period per hour of not more than 27% opacity.

9.13 Standard for Sulfur Dioxide

9.13.1 On and after the date on which the initial performance test required to be conducted under 1.4 of this regulation is completed, no owner or operator subject to the provisions of 9.0 of this regulation shall cause to be discharged into the atmosphere from any affected facility which combusts solid fuel or solid -derived fuel, except as provided under 9.13.3, 9.13.4, 9.13.5 or 9.13.7 of this regulation, any gases which contain sulfur dioxide in excess of:

9.13.1.1 520 ng/J (1.2 lb/million BTU) heat input and 10% of the potential combustion concentration (90% reduction), or

9.13.1.2 30% of the potential combustion concentration (70% reduction), when emissions are less than 260 ng/J (0.60 lb/million BTU) heat input.

9.13.2 On and after the date on which the initial performance test required to be conducted under 1.4 of this regulation is completed, no owner or operator subject to the provisions of 9.0 of this regulation shall cause to be discharged into the atmosphere from any affected facility which combusts liquid or gaseous fuels (except for liquid or gaseous fuels derived from solid fuels and as provided under 9.13.7 of this regulation), any gases which contain sulfur dioxide in excess of:

9.13.2.1 340 ng/J (0.8 lb/million BTU) heat input and 10% of the potential combustion concentration (90 percent reduction), or

9.13.2.2 100% of the potential combustion concentration (0% reduction) when emissions are less than 86 ng/J (0.20 lb/million BTU) heat input.

9.13.3 On and after the date on which the initial performance test required to be conducted under 1.4 of this regulation is complete, no owner or operator subject to the provisions of 9.0 of this regulation shall cause to be discharged into the atmosphere from any affected facility which combusts solid solvent refined coal (SRC-I) any gases which contain sulfur dioxide in excess of 520 ng/J (1.2 lb/million BTU) heat input and 15% of the potential combustion concentration (85% reduction) except as provided under 9.13.5 of this regulation; compliance with the emission limitation is determined on a 30–day rolling average basis and compliance with the percent reduction requirement is determined on a 24-hour basis.

9.13.4 Sulfur dioxide emissions are limited to 520 ng/J (1.2 lb/million BTU) heat input from any affected facility which:

9.13.4.1 Combusts 100% anthracite,

9.13.4.2 Is classified as a resource recovery facility.

9.13.5 The emission reduction requirements under 9.0 of this regulation do not apply to any affected facility that is operated under an SO_2 commercial demonstration permit issued by the Administrator of the U.S. Environmental Protection Agency in accordance with the provisions of 9.15 of this regulation.

9.13.6 Compliance with the emission limitation and percent reduction requirements under 9.0 of this regulation are both determined on a 30 day rolling average basis except as provided under 9.13.3 of this regulation.

9.13.7 When different fuels are combusted simultaneously, the applicable standard is determined by proration using the following formula:

9.13.7.1 If emissions of sulfur dioxide to the atmosphere are greater than 260 ng/J (0.60 lb/million BTU) heat input:

$$^{E}SO_2 = (340x + 520y)/100 \qquad (9\text{-}1)$$

$$^{P}SO_2 = 10\% \qquad (9\text{-}2)$$

9.13.7.2 If emissions of sulfur dioxide to the atmosphere are equal to or less than 260 ng/J (0.60 lb/million BTU) heat input:

$$^{E}SO_2 = (340x + 520y)/100 \quad (9\text{-}3)$$

$$^{P}SO_2 = (90x + 70y)/100 \quad (9\text{-}4)$$

where:

$^{E}SO_2$ is the prorated sulfur dioxide emission limit (ng/J heat input);

$^{P}SO_2$ is the percentage of potential sulfur dioxide emission allowed (percent reduction required = 100 - $^{P}SO_2$);

x is the percentage of total heat input derived from the combustion of liquid or gaseous fuels (excluding solid -derived fuels);

y is the percentage of total heat input derived from the combustion of solid fuel (including solid-derived fuels).

9.14 Standard for Nitrogen Oxides

9.14.1 On and after the date on which the initial performance test required to be conducted under 1.4 of this regulation is completed, no owner or operator subject to the provisions of 9.0 of this regulation shall cause to be discharged into the atmosphere from any affected facility, except as provided under 9.14.2 of this regulation, any gases which contain nitrogen oxides in excess of the following emission limits, based on a 30-day rolling average.

9.14.1.1 NO_x Emission Limits

Fuel Type	Emission Limit ng/J Heat Input	(lb/million BTU Heat Input)
Gaseous Fuels:		
Coal–derived fuels	210	(0.50)
All other fuels	86	(0.20)
Liquid Fuels:		
Coal–derived fuels	210	(0.50)
Shale oil	210	(0.50)
All other fuels	130	(0.30)
Solid Fuels:		
Coal–derived	210	(0.50)
Lignite not subject to the 340 ng/J heat input emission limit	260	(0.60)
Subbituminous coal	210	(0.50)
Bituminous coal	260	(0.60)
Anthracite coal	260	(0.60)
All other fuels	260	(0.60)

Any fuel containing more than 25% by weight coal refuse is exempt from NO_x standards and NO_x monitoring requirements.

9.14.1.2 NO_x reduction requirements

Fuel Type	Percent Reduction of Potential Combustion Concentration
Gaseous Fuels	25%
Liquid Fuels	30%
Solid Fuels	65%

9.14.2 The emission limitations under 9.14.1 of this regulation do not apply to any affected facility which is combusting coal-derived liquid fuel and is operating under a commercial demonstration permit issued by the Secretary in accordance with the provisions of 9.15 of this regulation.

9.14.3 When two or more fuels are combusted simultaneously, the applicable standard is determined by proration using the following formula:

$$^{E}NO_2 = (86w + 130x + 210y + 260z)/100 \qquad (9\text{-}5)$$

where:

$^{E}NO_2$ is the applicable standard for nitrogen oxides when multiple fuels are combusted simultaneously (ng/J heat input);

w is the percentage of total heat input derived from the combustion of fuels subject to the 86 ng/J heat input standard;

x is the percentage of total heat input derived from the combustion of fuels subject to the 130 ng/J heat input standard;

y is the percentage of total heat input derived from the combustion of fuels subject to the 210 ng/J heat input standard; and

z is the percentage of total heat input derived from the combustion of fuels subject to the 260 ng/J heat input standard.

9.15 Commercial Demonstration Permit

9.15.1 An owner or operator of an affected facility proposing to demonstrate an emerging technology may apply to the Administrator of the U.S. Environmental Protection Agency for a commercial demonstration permit. Commercial demonstration permits may be issued only by the Administrator of the U.S. Environmental Protection Agency.

9.15.2 An owner or operator of an affected facility that combusts solid solvent refined coal (SRC-I) and who is issued a commercial demonstration permit by the Administrator of the U.S. Environmental Protection Agency is not subject to the SO_2 emission reduction requirements under 9.13.3 of this regulation but must, as a minimum, reduce SO_2 emissions to 20% of the potential combustion concentration (80% reduction) for each 24-hour period of steam generator operation and to less than 520 ng/J (1.2 lb/million BTU) heat input on a 30-day rolling average basis.

9.15.3 An owner or operator of a fluidized bed combustion electric utility steam generator (atmospheric or pressurized) who is issued a commercial demonstration permit by the Administrator of the U.S. Environmental Protection Agency is not subject to the SO_2 emissions reduction requirements under 9.13 of this regulation but must, as a minimum, reduce SO_2 emissions to 15% of the potential combustion concentration (85% reduction) on a 30-day rolling average basis and to less than 520 ng/J (1.2 lb/million BTU) heat input on a 30-day rolling average basis.

9.15.4 The owner or operator of an affected facility that combusts coal-derived liquid fuel and who is issued a commercial demonstration permit by the Administrator of the U.S. Environmental Protection Agency is not subject to the applicable NO_x emission limitation and percent reduction under 9.14 of this regulation but must, as a minimum, reduce emissions to less than 300 ng/J (0.70 lb/million BTU) heat input on a 30-day rolling average basis.

9.16 Compliance Provisions

9.16.1 Compliance with the particulate matter emission limitation under 9.12.1.1 of this regulation constitutes compliance with the percent reduction requirements for particulate matter under 9.12.1.2 and 9.12.1.3 of this regulation.

9.16.2 Compliance with the nitrogen oxides emission limitation under 9.14.1 of this regulation constitutes compliance with the percent reduction requirements under 9.14 of this regulation.

9.16.3 The particulate matter emission standards under 9.12 of this regulation and the nitrogen oxides emission standards under 9.14 of this regulation apply at all times except during periods of startup, shutdown, or malfunction. The sulfur dioxide emission standards under 9.13 of this regulation apply at all times except during periods of startup, shutdown, or when both emergency conditions exist and the procedures under 9.16.4 of this regulation are implemented.

9.16.4 During emergency conditions in the principal company, an affected facility with a malfunctioning flue gas desulfurization system may be operated pursuant to a variance, issued under the provisions of 7 **Del.C.**, Ch 60, §6011 or §6012, which requires that sulfur dioxide emissions be minimized by at least the following actions:

9.16.4.1 Operating all operable flue gas desulfurization system modules, and bringing back into operation any malfunctioned module as soon as repairs are completed.

9.16.4.2 Bypassing flue gases around only those flue gas desulfurization system modules that have been taken out of operation because they were incapable of any sulfur dioxide emission reduction or which would have suffered significant physical damage if they had remained in operation, and

9.16.4.3 Designing, constructing, and operating a spare flue gas desulfurization system module for an affected facility larger than 365 MW (1,250 million BTU/hr) heat input (approximately 125 MW electrical output capacity). The Secretary may at his discretion require the owner or operator within 60 days of notification to demonstrate spare module capability. To demonstrate this capability, the owner or operator must demonstrate compliance with the appropriate requirements under 9.13.1, 9.13.2, 9.13.4 and 9.13.7 of this regulation for any period of operation lasting from 24 hours to 30 days when:

9.16.4.3.1 Any one flue gas desulfurization module is not operated.

9.16.4.3.2 The affected facility is operating at the maximum heat input rate,

9.16.4.3.3 The fuel fired during the 24-hour to 30-day period is representative of the type and average sulfur content of fuel used over a typical 30-day period, and

9.16.4.3.4 The owner or operator has given the Secretary at least 30 days notice of the date and period of time over which the demonstration will be performed.

9.16.5 After the initial performance test required under 1.4 of this regulation, compliance with the sulfur dioxide emission limitations and percentage reduction requirements under 9.13 of this regulation and the nitrogen oxides emission limitations under 9.14 of this regulation is based on the average emission rate for 30 successive boiler operating days. A separate performance test is completed at the end of each boiler operating day after the initial performance test, and a new 30 day average emission rate for both sulfur dioxide and nitrogen oxides and a new percent reduction for sulfur dioxide are calculated to show compliance with the standards in 9.0 of this regulation.

9.16.6 For the initial performance test required under 1.4 of this regulation, compliance with the sulfur dioxide emission limitations and percent reduction requirements under 9.13.1 of this regulation and the nitrogen oxides emission limitation under 9.14.1 of this regulation is based on the average emission rates for sulfur dioxide, nitrogen oxides, and percent reduction for sulfur dioxide for the first 30 successive boiler operating days. The initial performance test is the only test in which at least 30 days prior notice is required unless otherwise specified by the Secretary. The initial performance test is to be scheduled so that the first boiler operating day of the 30 successive boiler operating days is completed within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of the facility.

9.16.7 Compliance is determined by calculating the arithmetic average of all hourly emission rates for SO_2 and NO_x for the 30 successive boiler operating days, except for data obtained during startup, shutdown, malfunction (NO_x only), or emergency conditions (SO_2 only). Compliance with the percentage reduction requirement for SO_2 is determined based on the average inlet and average outlet SO_2 emission rates for the 30 successive boiler operating days.

9.16.8 If an owner or operator has not obtained the minimum quantity of emission data as required under 9.17 of this regulation, compliance of the affected facility with the emission requirements under 9.13 and 9.14 of

this regulation for the day on which the 30-day period ends may be determined by the Secretary by following the applicable procedures in sections 6.0 and 7.0 of Reference Method 19.

9.17 Emission monitoring

9.17.1 The owner or operator of an affected facility shall install, calibrate, maintain, and operate a continuous monitoring system, and record the output of the system, for measuring the opacity of emissions discharged to the atmosphere, except where gaseous fuel is the only fuel combusted. If opacity interference due to water droplets exists in the stack (for example, from the use of an FGD system), the opacity is monitored upstream of the interference (at the inlet to the FGD system). If opacity interference is experienced at all locations (both at the inlet and outlet of the sulfur dioxide control system), alternate parameters indicative of the particulate matter control system's performance are monitored (subject to the approval of the Secretary).

9.17.2 The owner or operator of an affected facility shall install, calibrate, maintain, and operate a continuous monitoring system, and record the output of the system, for measuring sulfur dioxide emissions, except where natural gas is the only fuel combusted, as follows:

9.17.2.1 Sulfur dioxide emissions are monitored at both the inlet and outlet of the sulfur dioxide control device.

9.17.2.2 For a facility which qualifies under the provisions of 9.13 of this regulation, sulfur dioxide emissions are only monitored as discharged to the atmosphere.

9.17.2.3 An "as fired" fuel monitoring system (upstream of coal pulverizers) meeting the requirements of Method 19 may be used to determine potential sulfur dioxide emissions in place of a continuous sulfur dioxide emissions monitor at the inlet to the sulfur dioxide control device as required under 9.17.2.1 of this regulation.

9.17.3 The owner or operator of an affected facility shall install, calibrate, maintain, and operate a continuous monitoring system, and record the output of the system, for measuring nitrogen oxides emissions discharged to the atmosphere.

9.17.4 The owner or operator of an affected facility shall install, calibrate, maintain, and operate a continuous monitoring system, and record the output of the system, for measuring the oxygen or carbon dioxide content of the flue gases at each location where sulfur dioxide or nitrogen oxides emissions are monitored.

9.17.5 The continuous monitoring systems under 9.17.2, 9.17.3 and 9.17.4 of this regulation are operated and data recorded during all periods of operation of the affected facility including periods of startup, shutdown, malfunction or emergency conditions, except for continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments.

9.17.6 When emission data are not obtained because of continuous monitoring system breakdowns, repairs, calibration checks and zero and span adjustments, emission data will be obtained by using other monitoring systems as approved by the Secretary of the reference methods as described in 9.17.8 of this regulation to provide emission data for a minimum of 18 hours in at least 22 out of 30 successive boiler operating days.

9.17.7 The one-hour averages required under 1.3.11 of this regulation are expressed in ng/J (lbs/million BTU) heat input and used to calculate the average emission rates under 9.16 of this regulation. The one-hour averages are calculated using the data points required under 1.3.11 of this regulation.

9.17.8 Reference methods used to supplement continuous monitoring system data to meet the minimum data requirements in 9.17 of this regulation will be used as specified below or otherwise approved by the Secretary.

9.17.8.1 Reference Methods 3, 6, and 7, as applicable, are used. The sampling location or locations are the same as those used for the continuous monitoring systems.

9.17.8.2 For Method 6, the minimum sampling time is 20 minutes and the minimum sampling volume is 0.02 dscm (0.71 dscf) for each sample. Samples are taken at approximately 60–minute intervals. Each sample represents a one-hour average.

9.17.8.3 For Method 7, samples are taken at approximately 30-minute intervals. The arithmetic average of these two consecutive samples represent a one-hour average.

9.17.8.4 For Method 3, the oxygen or carbon dioxide sample is to be taken for each hour when continuous SO_2 and NO_x data are taken or when Methods 6 and 7 are required. Each sample shall be taken for a minimum of 30 minutes in each hour using the integrated bag method specified in Method 3. Each sample represents a one-hour average.

9.17.8.5 For each one-hour average, the emissions expressed in ng/J (lb/million BTU) heat input are determined and used as needed to achieve the minimum data requirements of 9.17.6 of this regulation.

9.17.9 The following procedures are used to conduct monitoring system performance evaluations under 1.4 of this regulation and calibration checks under 1.3 of this regulation.

9.17.9.1 Reference method 6 or 7, as applicable, is used for conducting performance evaluations of sulfur dioxide and nitrogen oxides continuous monitoring systems.

9.17.9.2 Sulfur dioxide or nitrogen oxides, as applicable, is used for preparing calibration gas mixtures under Performance Specification 2 of Appendix B as specified in 1.3.4 of this regulation.

9.17.9.3 For affected facilities burning only fossil fuel, the span value for a continuous monitoring system for measuring opacity is between 60% and 80% and for a continuous monitoring system measuring nitrogen oxides is determined as follows:

Fossil Fuel	**Span value for** nitrogen oxides (ppm)
Gas	500
Liquid	500
Solid	1,000
Combination	500 (x + y) + 1,000z

where:

x is the fraction of total heat input derived from gaseous fossil fuel,
y is the fraction of total heat input derived from liquid fossil fuel, and
z is the fraction of total heat input derived from solid fossil fuel.

9.17.9.4 All span values computed under 9.17.2.3 of this regulation for burning combinations of fossil fuels are rounded to the nearest 500 ppm.

9.17.9.5 For affected facilities burning fossil fuel, alone or in combination with non-fossil fuel, the span value of the sulfur dioxide continuous monitoring system at the inlet to the sulfur dioxide control device is 125% of the maximum estimated hourly potential emissions of the fuel fired, and the outlet of the sulfur dioxide control device is 50% of maximum estimated hourly potential emissions of the fuel fired.

9.18 Compliance determination procedures and methods.

9.18.1 The following procedures and reference methods are used to determine compliance with the standards for particulate matter under 9.12 of this regulation.

9.18.1.1 Method 3 is used for gas analysis when applying Method 5 or Method 17.

9.18.1.2 Method 5 is used for determining particulate matter emissions and associated moisture content. Method 17 may be used for stack gas temperatures less than 160°C (320°F).

9.18.1.3 For Methods 5 or 17, Method 1 is used to select the sampling site and the number of traverse sampling points. The sampling time for each run is at least 120 minutes and the minimum sampling volume is 1.7 dscm (60 dscf) except that smaller sampling times or volumes, when necessitated by process variables or other factors, may be approved by the Secretary.

9.18.1.4 For Method 5, the probe and filter holder heating system in the sampling train is set to provide a gas temperature no greater than 160°C (320°F).

9.18.1.5 For determination of particulate emissions, the oxygen or carbon dioxide sample is obtained simultaneously with each run of Methods 5 or 17 by traversing the duct at the same sampling locations. Method 1 is used for selection of the number of traverse points except that no more than 12 sample points are required.

9.18.1.6 For each run using Methods 5 or 17, the emission rate expressed in ng/J input is determined using the oxygen or carbon dioxide measurements and particulate matter measurements obtained under 9.18 of this regulation, the dry basis F^c factor and the dry basis emission rate calculation procedure contained in Method 19.

9.18.1.7 Prior to the Secretary's issuance of a particulate matter reference method that does not experience sulfuric acid mist interference problems, particulate matter emissions may be sampled prior to a wet flue gas desulfurization system.

9.18.2 The following procedures and methods are used to determine compliance with the sulfur dioxide standards under 9.13 of this regulation.

9.18.2.1 Determine the percentage of potential combustion concentration (% PCC) emitted to the atmosphere as follows:

9.18.2.1.1 Fuel Pretreatment (%R_f):

Determine the present reduction achieved by any fuel pretreatment using the procedures in Method 19. Calculate the average percent reduction for fuel pretreatment on a quarterly basis using fuel analysis data. The determination of % R_f to calculate the percent of potential combustion concentration emitted to the atmosphere is optional. For purposes of determining compliance with any percent reduction requirements under 9.13 of this regulation, any reduction in potential SO_2 emissions resulting from the following processes may be credited:

9.18.2.1.1.1 Fuel pretreatment (physical coal cleaning, hydrodesulfurization of fuel, oil, etc.);

9.18.2.1.1.2 Coal pulverizers; and

9.18.2.1.1.3 Bottom and flyash interactions.

9.18.2.1.2 Sulfur Dioxide Control System (%R_g):

Determine the percent sulfur dioxide reduction achieved by any sulfur dioxide control system using emissions rates measured before and after the control system, following the procedures in Method 19; or, a combination of an "as fired" fuel monitor and emission rates measured after the control system, following the procedures in Method 19. When the "as fired" fuel monitor is used, the percent reduction is calculated using the average emission rate from the sulfur dioxide control device and the average SO_2 input rate from the "as fired" fuel analysis for 30 successive boiler operating days.

9.18.2.1.3 Overall percent reduction (%R_o):

Determine the overall percent reduction using the results obtained in 9.18.2.1.1 and 9.18.2.1.2 of this regulation following the procedures in Method 19. Results are calculated for each 30-day period using the quarterly average percent sulfur reduction determined for fuel pretreatment from the previous quarter and the sulfur dioxide reduction achieved by a sulfur dioxide control system for each 30-day period in the current quarter.

9.18.2.1.4 Percent emitted (% PCC):

Calculate the percent of potential combustion concentration emitted to the atmosphere using the following equation:

$$\% \text{ PCC} = 100 - \% R_o \qquad (9\text{-}6)$$

9.18.2.2 Determine the sulfur dioxide emission rates following the procedures in Method 19.

9.18.3 The procedures and methods outlined in Method 19 are used in conjunction with the 30-day nitrogen-oxides emission data collected under 9.17 of this regulation to determine compliance with the applicable nitrogen oxides standard under 9.14 of this regulation.

9.18.4 Electric utility combined cycle gas turbines are performance tested for particulate matter, sulfur dioxide, and nitrogen oxides using the procedures of Method 19. The sulfur dioxide and nitrogen oxides emission rates from the gas turbine used in Method 19 calculations are determined when the gas turbine is performance tested under subpart GG, 40 CFR, Part 60. The potential uncontrolled particulate matter emission rate from a gas turbine is defined as 17 ng/J (0.04 lb/million BTU) heat input.

9.19 Reporting requirements

9.19.1 For sulfur dioxide, nitrogen oxides, and particulate matter emissions, the performance test data from the initial performance test and from the performance evaluation of the continuous monitors (including the transmissometer) are submitted to the Secretary.

9.19.2 For sulfur dioxide and nitrogen oxides the following information is reported to the Secretary for each 24-hour period:

9.19.2.1 Calendar date;

9.19.2.2 The average sulfur dioxide and nitrogen oxide emission rates (ng/J or lb/million BTU) for each 30 successive boiler operating days, ending with the last 30-day period in the quarter; reasons for noncompliance with the emission standards; and, description of corrective actions taken;

9.19.2.3 Percent reduction of the potential combustion concentration of sulfur dioxide for each 30 successive boiler operating days, ending with the last 30-day period in the quarter; reasons for non-compliance with the standard; and, description of corrective actions taken;

9.19.2.4 An approved method for at least 18 hours of operation of the facility; justification for not obtaining sufficient data and description of corrective actions taken;

9.19.2.5 Identification of the times when emissions data have been excluded from the calculation of average emission rates because of startup, shutdown, malfunction (NO_x only), emergency conditions (SO_2 only), or other reasons, and justification for excluding data for reasons other than startup, shutdown, malfunction, or emergency conditions;

9.19.2.6 Identification of "F" factor used for calculations, methods of determination, and type of fuel combusted;

9.19.2.7 Identification of times when hourly averages have been obtained based on manual sampling methods;

9.19.2.8 Identification of the times when the pollutant concentration exceeded full span of the continuous monitoring system;

9.19.2.9 Description of any modifications to the continuous monitoring system which could affect the ability of the continuous monitoring system to comply with Performance Specifications 2 or 3.

9.19.3 If the minimum quantity of emission data as required by 9.17 of this regulation is not obtained for any 30 successive boiler operating days, the following information obtained under the requirements of 9.16 of this regulation is reported to the Secretary for that 30-day period:

9.19.3.1 The number of hourly averages available for outlet emission rates (N_o) and inlet emission rates (N_i) as applicable.

9.19.3.2 The standard deviation of hourly averages for outlet emission rates (S_o) and inlet emission rates (S_i) as applicable.

9.19.3.3 The lower confidence limit for the mean outlet emission rate (E_o*) and the upper confidence limit for the mean inlet emission rate (E_i*) as applicable.

9.19.3.4 The applicable potential combustion concentration.

9.19.3.5 The ratio of the upper confidence limit for the mean outlet emission rate (E_o*) and the allowable emission rate (Estd) as applicable.

9.19.4 If any standards under 9.13 of this regulation are exceeded during emergency conditions because of control system malfunction, the owner or operator of the affected facility shall submit a signed statement:

9.19.4.1 Indicating if emergency conditions existed and requirements under 9.16 of this regulation were met during each period, and

9.19.4.2 Listing the following information:

9.19.4.2.1 Time periods the emergency condition existed;

9.19.4.2.2 Electrical output and demand on the owner or operator's electric utility system and the affected facility;

9.19.4.2.3 Amount of power purchased from interconnected neighboring utility companies during the emergency period;

9.19.4.2.4 Percent reduction in emission achieved;

9.19.4.2.5 Atmospheric emission rate (ng/J) of the pollutant discharged; and

9.19.4.2.6 Actions taken to correct control system malfunction.

9.19.5 If fuel pretreatment credit toward the sulfur dioxide emission standard under 9.13 of this regulation is claimed, the owner or operator of the affected facility shall submit a signed statement:

9.19.5.1 Indicating what percentage cleaning credit was taken for the calendar quarter, and whether the credit was determined in accordance with the provisions of 9.18 of this regulation and Method 19, and

9.19.5.2 Listing the quantity, heat content, and date each pretreated fuel shipment was received during the previous quarter; the name and location of the fuel pretreatment facility; and the total quantity and total heat content of all fuels received at the affected facility during the previous quarter.

9.19.6 For any period for which opacity, sulfur dioxide or nitrogen oxides emission data are not available, the owner or operator of the affected facility shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability. Operations of the control system and affected facility during periods of data unavailability are to be compared with operation of the control system and affected facility before and following the period of data unavailability.

9.19.7 The owner or operator of the affected facility shall submit a signed statement indicating whether:

9.19.7.1 The required continuous monitoring system calibration, span, and drift checks or other periodic audits have or have not been performed as specified.

9.19.7.2 The data used to show compliance was or was not obtained in accordance with approved methods and procedures of this part and is representative of plant performance.

9.19.7.3 The minimum data requirements have or have not been met; or, the minimum data requirements have not been met for errors that were unavoidable.

9.19.7.4 Compliance with the standards has or has not been achieved during the reporting period.

9.19.8 For the purposes of the reports required under 1.2 of this regulation, periods of excess emissions are defined as all six-minute periods during which the average opacity exceeds the applicable opacity standards under 9.12 of this regulation. Opacity levels in excess of the applicable opacity standard and the date of such excesses are to be submitted to the Secretary each calendar quarter.

9.19.9 The owner or operator of an affected facility shall submit the written reports required under 9.19 of this regulation and subpart A as described in 1.7 of this regulation to the Secretary for every calendar quarter. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter.

9.19.10 As used in this regulation, Method 19 is the reference method described in Appendix A of 40 CFR Part 60, dated July 1, 1982.

NOTE:

1. Whenever the word "Administrator" is found in a federal document, it shall be replaced by the word "Secretary" and whenever the words "Act" and "Subpart A" are found in a federal document, they shall be replaced by the words "7 **DE Admin. Code** 1101 - DEFINITIONS AND ADMINISTRATIVE PRINCIPLES."

2. Any subsections, from Title 40 of the Code of Federal Regulations, which are referenced in the text of the following 10.0 through 28.0 of this regulation are also adopted as part of this regulation.

11/27/1985

10.0 Standards of Performance for Stationary Gas Turbines

The provisions of Subpart GG - Standards for Performance for Stationary Gas Turbines and Reference Method 20, of Part 60, Chapter I, Title 40 of the Code of Federal Regulations dated July 1, 1982, and as corrected in Vol. 47, No. 135 of the Federal Register dated July 14, 1982, are hereby adopted by reference.

11/27/1985

11.0 Standards of Performance for Petroleum Refineries

The provisions of Subpart J - Standards of Performance for Petroleum Refineries, of Part 60, Title 40 of the Code of Federal Regulations dated July 1, 1981, are hereby adopted by reference.

11/27/1985

12.0 Standards of Performance for Steel Plants: Electric Arc Furnaces

The provisions of Subpart AA - Standards of Performance for Steel Plants: Electric Arc Furnaces, of Part 60, Title 40 of the Code of Federal Regulations, as set forth in Vol. 49, No. 212, pp. 43843-43845, of the Federal Register are hereby adopted by reference.

12/07/1988

13.0 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

The provisions of Subpart Ka - Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, and Modification Commenced after May 18, 1978, and prior to July 23, 1984, of Part 60, Title 40 of the Code of Federal Regulations, as of July 1, 1986, and amended in the Federal Register on April 8, 1987, are hereby adopted by reference.

11/27/1985

14.0 Standards of Performance for Lead -Acid Battery Manufacturing Plants

The provisions of Subpart KK - Standards of Performance for Lead–Acid Battery Manufacturing Plants of 40 CFR 60, dated July 1, 1982, are hereby adopted by reference.

11/27/1985

15.0 Standards of Performance for Automobile and Light Duty Truck Surface Coating Operations

The provisions of Subpart MM - Standards of Performance for Automobile and Light Duty Truck Surface Coating Operations of 40 CFR 60, dated July 1, 1982, are hereby adopted by reference.

11/27/1985

16.0 Standards of Performance for the Graphic Arts Industry: Publication Rotogravure Printing

The provisions of Subpart QQ - Standards of Performance for the Graphic Arts Industry: Publication Rotogravure Printing of 40 CFR, FR, Vol. 47, No. 216, November 8, 1982, are hereby adopted by reference.

11/27/1985

17.0 Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture

The provisions of Subpart UU - Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture of 40 CFR, FR, Vol. 47, No. 152, August 6, 1982, are hereby adopted by reference.

11/27/1985

18.0 Standards of Performance for Pressure Sensitive Tape and Label Surface Coating Operations

The provisions of Subpart RR - Standards of Performance of Pressure Sensitive Tape and Label Surface Coating Operations of 40 CFR 60, FR, Vol. 48, No. 202, October 18, 1983, are hereby adopted by reference.

12/07/1988

19.0 Standards of Performance for Equipment Leaks of VOC in SOCMI

The provisions of Subpart VV - Standards of Performance for Equipment Leaks of VOC in Synthetic Organic Chemicals Manufacturing Industry, of Part 60, Title 40 of the Code of Federal Regulations, dated July 1, 1986, are hereby adopted by reference.

11/27/1985

20.0 Standards of Performance for Bulk Gasoline Terminals

The provisions of Subpart XX - Standards of Performance for Bulk Gasoline Terminals of 40 CFR 60, FR, Volume 48, No. 161, August 18, 1983, are hereby adopted by reference.

11/27/1985

21.0 Standards of Performance for Surface Coating of Metal Furniture

The provisions of Subpart EE - Standards of Performance for Surface Coating of Metal Furniture, 40 CFR, Part 60 as set forth in Vol. 50, No. 83, p. 18247-18248, of the Federal Register dated April 30, 1985, are hereby adopted by reference.

11/27/1985

22.0 Standards of Performance for Equipment Leaks at Petroleum Refineries

The provisions of Subpart GGG - Standards of Performance for Equipment Leaks at Petroleum Refineries, of Part 60, Title 40 of the Code of Federal Regulations, dated July 1, 1984, are hereby adopted by reference.

11/27/1985

23.0 Standards of Performance for Flexible Vinyl and Urethane Coating and Printing

The provisions of Subpart FFF - Standards of Performance for Flexible Vinyl and Urethane Coating and Printing, of Part 60, Title 40 of the Code of Federal Regulations, dated July 1, 1984, are hereby adopted by reference.

11/27/1985

24.0 Standards of Performance for Secondary Brass and Bronze Ingot Production Plants

The provisions of Subpart M - Standards of Performance for Secondary Brass and Bronze Ingot Production Plants, of Part 60, Title 40 of the Code of Federal Regulations, Federal Register, Vol. 42, dated July 25, 1977, and amended in the Federal Register, Vol. 49, dated October 30, 1984, are hereby adopted by reference.

11/27/1985

25.0 Standards of Performance for Steel Plants: Electric Arc Furnaces and Argon Decarburization Vessels Constructed After August 7, 1983

The provisions of Subpart AAa - Standards of Performance for Steel Plants: Electric Arc Furnaces and Argon Decarburization Vessels constructed after August 7, 1983, of Part 60, Title 40 of the Code of Federal Regulations, as set forth in Volume 49, No. 212, pp. 43845-43849, of the Federal Register, dated October 31, 1984, are hereby adopted by reference.

12/07/1988

26.0 Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units

The provisions of Subpart Db - Standards of Performance for New Stationary Sources, Industrial-Commercial-Institutional Steam Generating Units, of Part 60, Title 40 of the Code of Federal Regulations, as published in the Federal Register on November 25, 1986, are hereby adopted by reference.

12/07/1988

27.0 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

The provisions of 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, of Part 60, Title 40 of the Code of Federal Regulations, as published in the Federal Register on April 8, 1987 and June 16, 1987, are hereby adopted by reference.

4/11/1998

28.0 Standards of Performance for Municipal Solid Waste Landfills

The provisions of Subpart WWW - Standards of Performance for Municipal Solid Waste Landfills, of Part 60, Title 40 of the Code of Federal Regulations, as set forth in Vol. 61, No. 49, pp. 9919-9944, of the Federal Register, dated March 12, 1996, are hereby adopted by reference with the following changes:

28.1 Wherever the word “Administrator” appears it shall be replaced by the word “Department”, with the exception of Section 60.750(b).

28.2 Any subsection or appendix (including Appendix A – Reference Methods, 40 CFR Part 60) that is referenced in the text of the preceding adoption is also adopted by reference as it appears in Title 40 of the Code of Federal Regulations.

28.3 Section 60.750(a) shall be replaced with the following language: “The provisions of this subpart apply to each municipal solid waste landfill, open or closed, that commenced construction, reconstruction, or modification on or after May 30, 1991 or that has accepted waste after November 8, 1987 or that has additional capacity available to accept waste.”

28.4 Section 60.752(a) shall be replaced with the following language: “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 60.757(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 7 **DE Admin Code** 1130, Title V State Operating Permit Program, 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 7 **DE Admin Code** 1130, provided it is not a major source as defined in 7 **DE Admin Code** 1130. 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.”

28.5 Section 60.752(b) 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 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 Section 60.754. The NMOC emission rate shall be recalculated annually, except as provided in Section 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 7 **DE Admin Code** 1130. When a landfill is closed, and either never needed control or meets the conditions for control system removal specified in Section 60.752(b)(2)(v) of this subpart, a 7 **DE Admin Code** 1130 operating permit is no longer required.”

28.6 Section 60.752(b)(2)(ii) shall be replaced with the following language: “Install a collection and control system within 18 months of the submittal of the design plan under paragraph (b)(2)(i) of this section for municipal solid waste landfills that commenced construction, reconstruction, or modification on or after May 30, 1991, and as

expeditiously as practicable but not later than September 30, 1998 for all other subject municipal solid waste landfills, that effectively captures the gas generated within the landfill."

28.7 Section 60.753(g) shall be replaced with the following language: "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 Section 60.755(a)(3) through (5) or Section 60.755(c) of this subpart. If corrective actions are taken as specified in Section 60.755, the monitored exceedance is not a violation of the operational requirements in this section."

28.8 Delete Section 60.754(c).

28.9 Add new Section 60.757(a)(1)(iv) as follows: "For a subject municipal solid waste landfill not constructed, reconstructed, or modified on or after May 30, 1991, the initial design capacity report shall be submitted the earlier of the date specified in a State construction or operating permit, if applicable, or within 90 days from the effective date of this regulation."

28.10 Section 60.757(b)(1)(i) shall be replaced with the following language: "The initial NMOC emission rate report shall be submitted 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."

12/11/2012

29.0 Reserved

07/11/2017

30.0 Standards of Performance for Municipal Solid Waste Landfills After July 11, 2017

The provisions of Subpart XXX of Part 60, Title 40 of the Code of Federal Regulations - "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, attached hereto, are hereby incorporated herein and adopted by reference, subject to the following changes:

30.1 Wherever the word "Administrator" appears it shall be replaced by the word "Department", with the exception of paragraphs 60.760(b) and 60.764(a)(5).

30.2 The ASTM Standard Test Method D6522-11 is incorporated herein and adopted by reference. The following definitions, subsections and test methods that are referenced in the text of the preceding adoption are also incorporated herein and adopted by reference as they appear in Title 40 of the Code of Federal Regulations, dated July 1, 2016:

30.2.1 The definition of "land application unit", "surface impoundment", "injection well", "waste pile" and "other types of RCRA Subtitle D wastes" as each of those terms is defined in 40 CFR 257.2.

30.2.2 The definition of "sludge" and "solid waste" as each of those terms is defined in 40 CFR 258.2.

30.2.3 The definition of "performance test" in 60.764(a)(3)(i), as the term is defined in 40 CFR 60.8.

30.2.4 The requirements of 40 CFR 51.166 and 52.21, as referenced in 60.764(c).

30.2.5 The requirements of 40 CFR 60.4, as referenced in 60.767(i)(2).

30.2.6 The requirements of 40 CFR 60.7(a)(1), as referenced in 60.767(a)(1).

30.2.7 The requirements of 40 CFR 60.7(a)(4), as referenced in 60.761 and 60.767(e).

30.2.8 The requirements of 40 CFR 60.8, as referenced in 60.764(b)(3)(i), 60.764(e)(1), 60.767(g), 60.767(h), and 60.767(i)(1).

30.2.9 The requirements of 40 CFR 60.17, as referenced in 60.766(a)(2)(ii) and 60.766(a)(2)(iii)(B).

30.2.10 The requirements of 40 CFR 60.18, as referenced in 60.762(b)(2)(iii)(A) and 60.768(b)(4).

30.2.11 The requirements of 40 CFR 60.18(f)(3) and 60.18(f)(4), as referenced in 60.764(e).

30.2.12 The requirements of 40 CFR 258, as referenced in 60.767(k).

30.2.13 The requirements of 40 CFR 258.40, as referenced in 60.762(b)(2)(ii)(D)(2).

30.2.14 The requirements of 40 CFR 258.60, as referenced in 60.767(e).

30.2.15 Methods 2, 2E, 3, 3A, 3C, 18, 21, 25, 25A and 25C in appendix A of 40 CFR Part 60.

30.3 The title of Subpart XXX shall be replaced with the following language: "30.0 Standards of Performance for Municipal Solid Waste Landfills After July 11, 2017."

30.4 Section 60.760(a) shall be replaced with the following language: "The provisions of this subpart apply to each municipal solid waste landfill, open or closed, that commenced construction, reconstruction, or modification

after July 17, 2014 or that has accepted waste after November 8, 1987 or that has additional capacity available to accept waste."

30.5 Section 60.762(a) shall be replaced with the following language: "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 must submit an initial design capacity report to the Department as provided in §60.767(a). The landfill may calculate design capacity in either megagrams or cubic meters for comparison with the exemption values. Any density conversions must be documented and submitted with the report. For purposes of 7 **DE Admin. Code** 1130, Title V State Operating Permit Program, 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 7 **DE Admin. Code** 1130, provided it is not a major source as defined in 7 **DE Admin. Code** 1130. Submittal of the initial design capacity report fulfills the requirements of this subpart except as provided for in paragraphs (a)(1) and (2) of this section."

30.6 Delete ", local, or tribal" in Sections 60.761, 60.767(a)(2)(i) and 60.767(a)(2)(ii).

30.7 Paragraph 60.762(b) 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 either comply with paragraph (b)(2) of this section or calculate an NMOC emission rate for the landfill using the procedures specified in §60.764. The NMOC emission rate must be recalculated annually, except as provided in §60.767(b)(1)(ii). 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 7 **DE Admin. Code** 1130. When a landfill is closed, and either never needed control or meets the conditions for control system removal specified in §60.762(b)(2)(v), a 7 **DE Admin. Code** 1130 operating permit is no longer required."

30.8 Section 60.762(b)(2)(ii) 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 in accordance with paragraph (b)(2)(ii)(A) or (B) of this section, whichever is applicable."

30.9 Section 60.762(b)(2)(ii)(A) shall be replaced with the following language: "*For MSW landfills that commenced construction, reconstruction, or modification on or after July 17, 2014.* The collection and control system must be started up in accordance with paragraph (b)(2)(ii)(A)(1) or (2) of this section, whichever is applicable."

30.10 Add new section 60.762(b)(2)(ii)(A)(1) with the following language: "Within 30 months of the first annual report in which the NMOC emission rate equals or exceeds 34 megagrams per year, unless Tier 2 or Tier 3 sampling demonstrates that the NMOC emission rate is less than 34 megagrams per year, as specified in §60.767(c)(4) or".

30.11 Add new section 60.762(b)(2)(ii)(A)(2) with the following language: "Within 30 months of the most recent NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year based on Tier 2, if the Tier 4 surface emissions monitoring shows a surface methane emission concentration of 500 parts per million methane or greater as specified in §60.767(c)(4)(iii)."

30.12 Section 60.762(b)(2)(ii)(B) shall be replaced with the following language: "*For all other subject MSW landfills.* As expeditiously as practicable but not later than January 8, 2018."

30.13 Section 60.762(c) shall be replaced with the following language: "For purposes of obtaining an operating permit under title V of the Clean Air Act, the owner or operator of an 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 7 **DE Admin. Code** 1130, 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 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 7 **DE Admin. Code** 1130, becomes subject to the requirements of paragraph 5.1.1 of 7 **DE Admin. Code** 1130, regardless of when the design capacity report is actually submitted, no later than:".

30.14 Sections 60.762(c)(1), 60.767(a)(1)(i) and 60.767(b)(1)(i)(A) shall be replaced with the following language: "Ninety days after the date of commenced construction, modification, or reconstruction for MSW landfills that commenced construction, modification, or reconstruction on or after July 17, 2014 or".

30.15 Section 60.762(c)(2) and Section 60.767(b)(1)(i)(B) shall be replaced with the following language: "January 8, 2018 for all other subject MSW landfills."

30.16 Section 60.763(g) shall be replaced with the following language: "If monitoring demonstrates that the operational requirement in paragraphs (b), (c), or (d) of this section are not met, corrective action must be taken as specified in §60.765(a)(3) and (5) or §60.765(c). If corrective actions are taken, as specified in §60.765, the monitored exceedance is not a violation of the operational requirements in this section."

30.17 Section 60.767(a)(1)(ii) shall be replaced with the following language: "The date specified in a State construction or operating permit, if applicable, or January 8, 2018, whichever is earlier, for all other subject MSW landfills."

30.18 The final sentence in section 60.767(a)(2)(ii) shall be replaced with the following language: "The Department may request other reasonable information as may be necessary to verify the maximum design capacity of the landfill."

30.19 Section 60.767(i)(1)(ii) shall be replaced with the following language: "For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT Web site at the time of the test, you must submit the results of the performance test to the Department."

30.20 Section 60.767(k)(7) shall be replaced with the following language: "The initial report must contain items in paragraph (k)(1) through (6) of this section per year for the initial annual reporting period as well as for each of the previous 10 years, to the extent historical data are available in on-site records, and the report must be submitted no later than thirteen (13) months after the date of commenced construction, modification, or reconstruction for landfills that commenced construction, modification, or reconstruction on or after July 17, 2014 containing data for the first 12 months after August 29, 2016."

30.21 Delete and reserve sections 60.767(k)(7)(i) and 60.767(k)(7)(ii).

30.22 Section 60.768(c)(3) shall be replaced with the following language: "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 §60.762(b)(2)(iii) must 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 or federal regulatory requirements.)"

1 DE Reg. 1653 (04/01/98)

2 DE Reg. 390 (09/01/98)

16 DE Reg. 644 (12/01/12)

21 DE Reg. 46 (07/01/17)

STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES
& ENVIRONMENTAL CONTROL
DIVISION OF AIR QUALITY
STATE STREET COMMONS
100 W. Water Street, Suite 6A
DOVER, DELAWARE 19904

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CERTIFICATION
May 30, 2017

I hereby certify that a public hearing was held April 24, 2017, on revisions to the State of Delaware State Implementation Plan to existing **Regulation No. 1120** New Source Performance Standards by incorporating the federal new MSWL requirements in Subpart XXX, by reference, as a new standard (Section 30) that is applicable to municipal solid waste landfills (MSWLs). To satisfy the existing MSWL requirements of Subpart Cf, the applicability of Section 30 will be expanded to include both existing and new MSWLs. Once finalized, Section 30 and the State Plan will be submitted to the EPA for approval. There are three MSWLs in Delaware; all are operated by the Delaware Solid Waste Authority and will be subject to the State Plan and amended regulation.

On August 29, 2016, the EPA promulgated two regulations applicable to MSWLs. The EPA promulgated 40 CFR Part 60 Subpart XXX, which regulates the emissions from new (i.e., newly constructed, reconstructed, or modified) MSWLs and 40 CFR Part 60 Subpart Cf, which requires States to regulate emissions from existing MSWLs. The purpose of these two federal regulations is to reduce volatile organic compounds (VOCs) and methane emissions from MSWLs.

These amendments are to satisfy the US EPA requirements related to air emissions during equipment start-ups and shutdown as required by EPA SIP Call (80 FR 33840). The effective date of these amendments is July 11, 2017.

I further certify that the hearing was held in accordance with the notice required by Subsection 51.102 of 40 CFR 51.

Ali Mirzakhalili, P.E.
Director
Division of Air Quality

HEARING OFFICER'S REPORT

TO: The Honorable Shawn M. Garvin
Cabinet Secretary, Department of Natural Resources and Environmental Control

FROM: Lisa A. Vest
Public Hearing Officer, Office of the Secretary
Department of Natural Resources and Environmental Control

RE: Proposed Regulation Amendments to 7 DE Admin. Code 1120, *New Source Performance Standards,* to wit: the adoption of a new Section 30.0 (as required by 40 CFR Part 60, Subpart XXX and 40 CFR Part 60, Subpart Cf); and proposed revisions to Delaware's Section 111(d) State Plan for the Regulation of Air Emissions from Municipal Solid Waste Landfills

DATE: May 23, 2017

I. BACKGROUND AND PROCEDURAL HISTORY:

A public hearing was held on Monday, April 24, 2017, at 6:00 p.m. at the Department of Natural Resources and Environmental Control ("DNREC", "Department"), State Street Commons, 100 W. Water Street, Dover, Delaware to receive comment on proposed regulatory amendments ("Amendments") to 7 DE Admin. Code 1120, *New Source Performance Standards*, to wit: the adoption of a new Section 30.0 (as required by 40 CFR Part 60, Subpart XXX and 40 CFR Part 60, Subpart Cf), and proposed revisions to Delaware's State Plan for the Regulation of Air Emissions from Municipal Solid Waste Landfills, hereinafter referred to as Delaware's "Section 111(d) State Plan". On August 29, 2016, the United States Environmental Protection Agency ("U.S. EPA", "EPA") adopted two regulations applicable to municipal solid waste landfills ("MSWLs"): 40 CFR Part 60, Subpart XXX (which regulated emissions from new[1] MSWLs); and 40 CFR Part 60, Subpart Cf (which mandated state agencies to develop a plan to regulate emissions from existing MSWLs). The purpose of these two federal regulations was to

[1]For contextual clarity herein, the term "new" refers to newly constructed, newly reconstructed, or newly modified MSWLs.

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reduce the public health risks associated with both Volatile Organic Compounds ("VOCs") and methane emissions from MSWLs.

The Department proposes to adopt the aforementioned Amendments in order for Delaware to incorporate the federal requirements found in Subpart XXX of 40 CFR Part 60 by reference into a new Section 30.0 of 7 DE Admin. Code 1120. To satisfy the federal requirements found in Subpart Cf of 40 CFR Part 60, the applicability of Section 30.0 will be expanded, such that it will apply to all MSWLs, i.e., both existing *and* new MSWLs. Once this proposed regulatory promulgation is finalized by the Department, both the newly adopted Section 30.0 of 7 DE Admin. Code 1120 *and* the revisions to Delaware's Section 111(d) Plan will be submitted to EPA for approval.

To serve as background for this proposed regulatory promulgation, it is important to note that Congress sought to reduce public health impacts due to air pollutants in various sections of the Clean Air Act Amendments of 1990 ("CAA"). Under Section 111(b) of the CAA, Congress stipulated that the EPA develop a list of stationary source categories that contribute to the endangerment of public health, and to then promulgate regulations applicable to new sources in those source categories. These regulations are referred to as New Source Performance Standards ("NSPS").

Under Section 111(d) of the aforementioned CAA, Congress stipulated that state agencies would develop individual "State Plans" to similarly reduce the impact air pollutants emitted from existing sources for those same stationary source categories identified by the EPA under Section 111(b). Congress further required the EPA to (1) prescribe regulations to assist state agencies in their Section 111(d) State Plan developments; and (2) review and either approve or disapprove the submitted Section 111(d) State Plans, as appropriate. These prescribed regulations are referred to as

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Emission Guidelines ("EGs"). One of the stationary source categories identified by the EPA was municipal solid waste landfills.

On March 12, 1996, the EPA finalized the first NSPS for MSWLs under Subpart WWW of 40 CFR Part 60. This NSPS was only applicable to *new* landfills. Also on March 12, 1996, the EPA finalized an EG for MSWLs under Subpart Cc of 40 CFR Part 60. This EG prescribed the necessary guidance for state agencies to develop their individual Section 111(d) State Plans to address the emission from *existing* landfills. As a result of these two federal regulations, in 1997 the Department began to adopt the federal requirements of Subpart WWW of 40 CFR Part 60 by reference as Section 28.0 of 7 DE Admin. Code 1120. As part of Delaware's Section 111(d) State Plan development, the Department expanded the applicability of Section 28.0 to include existing landfills, as well as new landfills. This satisfied the existing landfill requirements of Subpart Cc. The Department submitted the final Section 28.0 and the final Section 111(d) State Plan to the EPA on April 23, 1998, and the EPA approved the same on November 16, 1999.

Section 111(b) of the CAA also requires the EPA to review each promulgated NSPS at least every eight (8) years, and, if appropriate, to revise the standards. It is the result of such subsequent EPA review that the Department proposes this current regulatory promulgation.

Upon comparison of these two federal regulations (40 CFR Part 60, Subpart XXX and 40 CFR Part 60, Subpart Cf) to its existing regulations of the 1990s, the Department found the following: (1) the air pollutants of concern were unchanged; (2) the stationary source category was unchanged; (3) the owner or operator is the same, to wit: the Delaware Solid Waste Authority ("DSWA"); and (4) the affected facilities are the same. Given the remarkable similarity of the EPA's August 2016 regulatory promulgations to those of the late 1990s, the Department has decided to use the same successful regulatory strategy as previously used in the late 1990s.

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Thus, as noted above, the Department proposes to adopt the aforementioned Amendments and Delaware's Section 111(d) State Plan in order for Delaware to incorporate the federal requirements found in both 40 CFR Part 60 Subpart XXX and 40 CFR Part 60 Subpart Cf . It should be noted that there are currently three (3) existing MSWLs in Delaware, all under the control of DSWA. The likely cost increases associated with the new federal requirements should be minimal, due to the fact that all three existing MSWLs are already operating landfill gas collection and control equipment that was installed under a similar regulatory action taken in 1998.

The Department has the statutory basis and legal authority to act with regard to this proposed regulatory promulgation, pursuant to 7 *Del.C.*, Chapter 60. The aforementioned proposed Amendments and revised Section 111(d) State Plan were presented and thoroughly vetted by the Department at the public hearing on April 24, 2017. Members of the public attended that public hearing; however, no comment was received by the Department at that time, nor at any subsequent time prior to the hearing record closing with regard to public comment on May 10, 2017.

Written comment was, however, received by the Department from the DSWA *prior* to the time of the April 24, 2017 public hearing, which provided updated data for each of its three MSWLs. Department staff then incorporated this data into the table located in Section IV of the Section 111(d) State Plan, and then fully vetted same to the public at the time of the aforementioned public hearing. No further public re-noticing or re-publication of this proposed regulatory promulgation is necessary at this time, given that the additional data incorporated into Delaware's revised Section 111(d) State Plan: (1) consist only of updated descriptions of the DSWA facilities; (2) are non-substantive in nature; and (3) are not essential to either the proposed Amendments or to the Section 111(d) State Plan. It should also be noted that all proper

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notification and noticing requirements concerning this matter were met by the Department. Proper notice of the hearing was provided as required by law.

II. SUMMARY OF THE PUBLIC HEARING RECORD:

The public hearing record consists of the following documents: (1) a verbatim transcript; (2) nineteen documents introduced by responsible Department staff at the public hearing held on April 24, 2017, and marked by this Hearing Officer accordingly as "Department Exhibits 1-19"; (3) E-mail from V. Nicole Burkhardt of DSWA dated April 24, 2017, and marked by this Hearing Officer accordingly as "DSWA Exh. #1"; and (4) Response Memorandum dated May 23, 2017 from the Department's Division of Air Quality, confirming the incorporation of DSWA's comments into the formal hearing record, and that all questions raised by DSWA were answered by Department staff, with no revisions to either the proposed Amendments or Delaware's revised Section 111(d) State Plan being necessitated as a result of same. The Department's person primarily responsible for the drafting and overall promulgation of these proposed Amendments, Jim Snead, Engineer IV, Division of Air Quality, developed the record with the relevant documents in the Department's files.

As noted previously, the aforementioned proposed Amendments and Delaware's revised Section 111(d) State Plan were presented and thoroughly vetted by the Department at the public hearing on April 24, 2017. Members of the public attended that public hearing; however, no additional comment was received by the Department at that time. Again, written comment from DSWA (which provided updated data for each of its three MSWLs) was received by the Department *prior* to the time of the April 24, 2017 public hearing, and that data was able to be incorporated into Delaware's revised Section 111(d) State Plan and fully vetted to the public at

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the time of the aforementioned public hearing. Thus, no further public re-noticing or re-publication of this regulatory promulgation is necessary at this time.

Pursuant to Delaware law, the record remained open for fifteen (15) additional days subsequent to the date of the public hearing for the purpose of receiving additional public comment regarding this proposed promulgation, but none was received by the Department during that time. The hearing record formally closed with regard to public comment on May 10, 2017.

For the Secretary's review, a copy of the Department's proposed Amendments as published in the April 1, 2017 *Delaware Register of Regulations* is attached hereto as Appendix "A"; a copy of Delaware's Section 111(d) State Plan, as vetted at the aforementioned public hearing, is attached hereto as Appendix "B"; and a copy of the aforementioned Response Memorandum dated May 23, 2017 as provided by the Department's Division of Air Quality is attached hereto as Appendix "C". Again, all proper notification and noticing requirements concerning this proposed promulgation were met by the Department in this matter.

III. RECOMMENDED FINDINGS AND CONCLUSIONS:

Based on the record developed, I find and conclude that the Department has provided appropriate reasoning regarding the need for the proposed Amendments to 7 DE Admin. Code 1120, *New Source Performance Standards*, to wit: the adoption of a new Section 30.0 (as required by 40 CFR Part 60, Subpart XXX and 40 CFR Part 60, Subpart Cf); and proposed revisions to Delaware's Section 111(d) State Plan for the Regulation of Air Emissions from Municipal Solid Waste Landfills. Accordingly, I recommend promulgation of the same in the customary manner provided by law.

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Further, I recommend the Secretary adopt the following findings and conclusions:

1. The Department has the statutory basis and legal authority to act with regard to the proposed amendments to 7 DE Admin. Code 1120, *New Source Performance Standards*, to wit: the adoption of a new Section 30.0 (as required by 40 CFR Part 60, Subpart XXX and 40 CFR Part 60, Subpart Cf); and proposed revisions to Delaware's Section 111(d) State Plan for the Regulation of Air Emissions from Municipal Solid Waste Landfills, pursuant to 7 *Del.C.*, Ch. 60;

2. The Department has jurisdiction under its statutory authority, pursuant to 7 *Del.C.*, Ch. 60, to issue an Order adopting these proposed regulatory amendments and proposed revisions to Delaware's Section 111(d) State Plan as final;

3. The Department provided adequate public notice of the proposed regulatory amendments and proposed revisions to Delaware's Section 111(d) State Plan, and all proceedings associated with the same, in a manner required by the law and regulations, provided the public with an adequate opportunity to comment on the proposed regulatory amendments, including at the time of the public hearing held on April 24, 2017, and held the record open through close of business on May 10, 2017, consistent with 29 *Del.C.* §10118(a), in order to consider public comment on the same before making any final decision;

4. While the Department made revisions to the initial proposed Delaware's Section 111(d) State Plan as set forth above, such changes were made *prior* to the public hearing of April 24, 2017, and were all fully vetted to the public as referenced above. Moreover, since no additional comment was received by the Department subsequent to the aforementioned public hearing, no other changes were made to either the proposed Amendments or Delaware's Section

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111(d) State Plan. Therefore, no additional re-publication or re-noticing is necessitated at this time;

5. Promulgation of the proposed regulatory amendments to 7 DE Admin. Code 1120, *New Source Performance Standards*, to wit: the adoption of a new Section 30.0 (as required by 40 CFR Part 60, Subpart XXX and 40 CFR Part 60, Subpart Cf); and proposed revisions to Delaware's Section 111(d) State Plan for the Regulation of Air Emissions from Municipal Solid Waste Landfills, will enable the Department to incorporate the federal requirements found in Subpart XXX of 40 CFR Part 60 by reference into a new Section 30.0 of 7 DE Admin. Code 1120. To satisfy the federal requirements found in Subpart Cf of 40 CFR Part 60, the applicability of Section 30.0 will be expanded, such that it will apply to all MSWLs, i.e., both existing *and* new MSWLs. Moreover, the adoption of the aforementioned federal requirements will enable Delaware to further reduce the public health risks associated with VOC and methane emissions from MSWLs. Once this proposed regulatory promulgation is finalized by the Department, both the newly adopted Section 30.0 of 7 DE Admin. Code 1120 *and* the revisions to Delaware's Section 111(d) State Plan will be submitted to EPA for approval;

6. The Department has reviewed these proposed regulatory amendments in the light of the Regulatory Flexibility Act, consistent with 29 *Del.C.* Ch. 104 (version applicable to all regulations initially published on or after January 1, 2016), and has selected Exemption "A" regarding same, as this proposed regulation is not subject to Chapter 104, Title 29 of the Delaware Code, because it will not apply to small businesses or individuals at all;

7. The Department's proposed regulatory amendments and proposed revisions to Delaware's Section 111(d) State Plan, as initially published in the April 1, 2017 *Delaware Register of Regulations*, and as set forth in Appendices "A" and "B" hereto, are adequately

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supported, are not arbitrary or capricious, and are consistent with the applicable laws and regulations. Consequently, they should be approved as final regulatory amendments, which shall go into effect ten days after their publication in the next available issue of the *Delaware Register of Regulations*; and

8. The Department shall submit the proposed regulatory amendments as final regulatory amendments to 7 DE Admin. Code 1120, *New Source Performance Standards*, to wit: the adoption of a new Section 30.0 (as required by 40 CFR Part 60, Subpart XXX and 40 CFR Part 60, Subpart Cf); and the proposed revisions to Delaware's Section 111(d) State Plan for the Regulation of Air Emissions from Municipal Solid Waste Landfills, to the *Delaware Register of Regulations* for publication in its next available issue, and provide such other notice as the law and regulation require and the Department determines is appropriate.

LISA A. VEST
Public Hearing Officer

\ahear\ Reg. 1120 Sect.30 Amndmts. and State Plan.2017

Attachments/Appendix:

Appendix A: Proposed Reg. Amendments
Appendix B: Revised Section 111(d) State Plan
Appendix C: DAQ Response Memo (05/23/17)

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APPENDIX "A"

DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

DIVISION OF AIR QUALITY

Statutory Authority: 7 Delaware Code, Chapter 60; (7 **Del.C.** Ch. 60)

7 DE Admin. Code 1120

REGISTER NOTICE

SAN # 2017-03

1120 New Source Performance Standards

1. TITLE OF THE REGULATIONS:

7 **DE Admin. Code** 1120 New Source Performance Standards

2. BRIEF SYNOPSIS OF THE SUBJECT, SUBSTANCE AND ISSUES:

On August 29, 2016, the EPA promulgated two regulations applicable to municipal solid waste landfills (MSWLs). The EPA promulgated 40 CFR Part 60 Subpart XXX under 111(b); Subpart XXX regulated the emissions from new MSWLs. The EPA promulgated 40 CFR Part 60 Subpart Cf under 111(d); Subpart Cf mandated state agencies to develop plans to regulate emissions from existing MSWLs. The purpose of these two federal regulations was to reduce the public health impacts associated with VOC and methane emissions from MSWLs.

The purpose of this action is to incorporate the federal new MSWL requirements in Subpart XXX by reference as Section 30 of 7 **DE Admin. Code** 1120. To satisfy the existing MSWL requirements of Subpart Cf, the applicability of Section 30 will be expanded to include both existing and new MSWLs. Once finalized, Section 30 and the State Plan will be submitted to the EPA for approval. There are three existing MSWLs in Delaware; all are operated by the Delaware Solid Waste Authority. There are no new MSWLs.

3. POSSIBLE TERMS OF THE AGENCY ACTION:

None

4. STATUTORY BASIS OR LEGAL AUTHORITY TO ACT:

7 Delaware Code, Chapter 60, Environmental Control

5. OTHER REGULATIONS THAT MAY BE AFFECTED BY THE PROPOSAL:

None

6. NOTICE OF PUBLIC COMMENT:

Statements and testimony may be presented either orally or in writing at a public hearing to be held on Monday, April 24, 2017 starting at 6:00 PM in the DNREC office located at 100 W. Water Street (Suite 6A), Dover, DE. If you are unable to attend or wish to submit your comments in advance of the public hearing, please send your comments to address below. Interested parties may also submit written comments to the Department, to the same address below, up until the end of the comment period, which will extend through May 9, 2017, unless a longer 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

7. PREPARED BY:

Jim Snead (302) 323-4542 jsnead@state.de.us March 12, 2017

***Please Note: The Regulatory Flexibility Analysis and Impact Statement for this regulation, as required by 29 Del.C. Ch. 104, is available at:**

http://regulations.delaware.gov/register/april2017/proposed/20 DE Reg 771RFA 04-01-17.pdf

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1120 New Source Performance Standards
(Break in Continuity of Sections)

30.0 Standards of Performance for Municipal Solid Waste Landfills After July 11, 2017

The provisions of Subpart XXX of Part 60, Title 40 of the Code of Federal Regulations - "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, attached hereto, are hereby incorporated herein and adopted by reference, subject to the following changes:

30.1 Wherever the word "Administrator" appears it shall be replaced by the word "Department", with the exception of paragraphs 60.760(b) and 60.764(a)(5).

30.2 The ASTM Standard Test Method D6522-11 is incorporated herein and adopted by reference. The following definitions, subsections and test methods that are referenced in the text of the preceding adoption are also incorporated herein and adopted by reference as they appear in Title 40 of the Code of Federal Regulations, dated July 1, 2016:

30.2.1 The definition of "land application unit", "surface impoundment", "injection well", "waste pile" and "other types of RCRA Subtitle D wastes" as each of those terms is defined in 40 CFR 257.2.

30.2.2 The definition of "sludge" and "solid waste" as each of those terms is defined in 40 CFR 258.2.

30.2.3 The definition of "performance test" in 60.764(a)(3)(i), as the term is defined in 40 CFR 60.8.

30.2.4 The requirements of 40 CFR 51.166 and 52.21, as referenced in 60.764(c).

30.2.5 The requirements of 40 CFR 60.4, as referenced in 60.767(i)(2).

30.2.6 The requirements of 40 CFR 60.7(a)(1), as referenced in 60.767(a)(1).

30.2.7 The requirements of 40 CFR 60.7(a)(4), as referenced in 60.761 and 60.767(e).

30.2.8 The requirements of 40 CFR 60.8, as referenced in 60.764(b)(3)(i), 60.764(e)(1), 60.767(g), 60.767(h), and 60.767(i)(1).

30.2.9 The requirements of 40 CFR 60.17, as referenced in 60.766(a)(2)(ii) and 60.766(a)(2)(iii)(B).

30.2.10 The requirements of 40 CFR 60.18, as referenced in 60.762(b)(2)(iii)(A) and 60.768(b)(4).

30.2.11 The requirements of 40 CFR 60.18(f)(3) and 60.18(f)(4), as referenced in 60.764(e).

30.2.12 The requirements of 40 CFR 258, as referenced in 60.767(k).

30.2.13 The requirements of 40 CFR 258.40, as referenced in 60.762(b)(2)(ii)(D)(2).

30.2.14 The requirements of 40 CFR 258.60, as referenced in 60.767(e).

30.2.15 Methods 2, 2E, 3, 3A, 3C, 18, 21, 25, 25A and 25C in appendix A of 40 CFR Part 60.

30.3 The title of Subpart XXX shall be replaced with the following language: "30.0 Standards of Performance for Municipal Solid Waste Landfills After July 11, 2017."

30.4 Section 60.760(a) shall be replaced with the following language: "The provisions of this subpart apply to each municipal solid waste landfill, open or closed, that commenced construction, reconstruction, or modification after July 17, 2014 or that has accepted waste after November 8, 1987 or that has additional capacity available to accept waste."

30.5 Section 60.762(a) shall be replaced with the following language: "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 must submit an initial design capacity report to the Department as provided in §60.767(a). The landfill may calculate design capacity in either megagrams or cubic meters for comparison with the exemption values. Any density conversions must be documented and submitted with the report. For purposes of 7 **DE Admin. Code** 1130, Title V State Operating Permit Program, 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 7 **DE Admin. Code** 1130, provided it is not a major source as defined in 7 **DE Admin. Code** 1130. Submittal of the initial design capacity report fulfills the requirements of this subpart except as provided for in paragraphs (a)(1) and (2) of this section."

30.6 Delete ", local, or tribal" in Sections 60.761, 60.767(a)(2)(i) and 60.767(a)(2)(ii).

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30.7 Paragraph 60.762(b) 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 either comply with paragraph (b)(2) of this section or calculate an NMOC emission rate for the landfill using the procedures specified in §60.764. The NMOC emission rate must be recalculated annually, except as provided in §60.767(b)(1)(ii). 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 7 **DE Admin. Code** 1130. When a landfill is closed, and either never needed control or meets the conditions for control system removal specified in §60.762(b)(2)(v), a 7 **DE Admin. Code** 1130 operating permit is no longer required."

30.8 Section 60.762(b)(2)(ii) 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 in accordance with paragraph (b)(2)(ii)(A) or (B) of this section, whichever is applicable."

30.9 Section 60.762(b)(2)(ii)(A) shall be replaced with the following language: "*For MSW landfills that commenced construction, reconstruction, or modification on or after July 17, 2014.* The collection and control system must be started up in accordance with paragraph (b)(2)(ii)(A)(1) or (2) of this section, whichever is applicable."

30.10 Add new section 60.762(b)(2)(ii)(A)(1) with the following language: "Within 30 months of the first annual report in which the NMOC emission rate equals or exceeds 34 megagrams per year, unless Tier 2 or Tier 3 sampling demonstrates that the NMOC emission rate is less than 34 megagrams per year, as specified in §60.767(c)(4) or".

30.11 Add new section 60.762(b)(2)(ii)(A)(2) with the following language: "Within 30 months of the most recent NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year based on Tier 2, if the Tier 4 surface emissions monitoring shows a surface methane emission concentration of 500 parts per million methane or greater as specified in §60.767(c)(4)(iii)."

30.12 Section 60.762(b)(2)(ii)(B) shall be replaced with the following language: "*For all other subject MSW landfills.* As expeditiously as practicable but not later than January 8, 2018."

30.13 Section 60.762(c) shall be replaced with the following language: "For purposes of obtaining an operating permit under title V of the Clean Air Act, the owner or operator of an 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 7 **DE Admin. Code** 1130, 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 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 7 **DE Admin. Code** 1130, becomes subject to the requirements of paragraph 5.1.1 of 7 **DE Admin. Code** 1130, regardless of when the design capacity report is actually submitted, no later than:".

30.14 Sections 60.762(c)(1), 60.767(a)(1)(i) and 60.767(b)(1)(i)(A) shall be replaced with the following language: "Ninety days after the date of commenced construction, modification, or reconstruction for MSW landfills that commenced construction, modification, or reconstruction on or after July 17, 2014 or".

30.15 Section 60.762(c)(2) and Section 60.767(b)(1)(i)(B) shall be replaced with the following language: "January 8, 2018 for all other subject MSW landfills."

30.16 Section 60.763(g) shall be replaced with the following language: "If monitoring demonstrates that the operational requirement in paragraphs (b), (c), or (d) of this section are not met, corrective action must be taken as specified in §60.765(a)(3) and (5) or §60.765(c). If corrective actions are taken, as specified in §60.765, the monitored exceedance is not a violation of the operational requirements in this section."

30.17 Section 60.767(a)(1)(ii) shall be replaced with the following language: "The date specified in a State construction or operating permit, if applicable, or January 8, 2018, whichever is earlier, for all other subject MSW landfills."

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30.18 The final sentence in section 60.767(a)(2)(ii) shall be replaced with the following language: "The Department may request other reasonable information as may be necessary to verify the maximum design capacity of the landfill."

30.19 Section 60.767(i)(1)(ii) shall be replaced with the following language: "For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT Web site at the time of the test, you must submit the results of the performance test to the Department."

30.20 Section 60.767(k)(7) shall be replaced with the following language: "The initial report must contain items in paragraph (k)(1) through (6) of this section per year for the initial annual reporting period as well as for each of the previous 10 years, to the extent historical data are available in on-site records, and the report must be submitted no later than thirteen (13) months after the date of commenced construction, modification, or reconstruction for landfills that commenced construction, modification, or reconstruction on or after July 17, 2014 containing data for the first 12 months after August 29, 2016."

30.21 Delete and reserve sections 60.767(k)(7)(i) and 60.767(k)(7)(ii).

30.22 Section 60.768(c)(3) shall be replaced with the following language: "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 §60.762(b)(2)(iii) must 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 or federal regulatory requirements.)"

***Please Note: As the rest of the sections were not amended, they are not being published. A copy of the regulation is available at:**

1120 New Source Performance Standards

DEPARTMENT OF SAFETY AND HOMELAND SECURITY

DIVISION OF STATE POLICE

5500 BAIL ENFORCEMENT AGENTS

Statutory Authority: 24 Delaware Code, Section 5504(e) (24 **Del.C.** §5504(e))
24 **DE Admin. Code** 5500

PUBLIC NOTICE

5500 Bail Enforcement Agents

Notice is hereby given that the Board of Examiners of Bail Enforcement Agents, in accordance with 24 **Del.C.** Ch. 55 proposes to amend the following adopted rule in 24 **DE Admin. Code** 5500 Bail Enforcement Agents: Rule 2.0 - Badges, Patches, Advertisements - clarifying that "Bail Enforcement Agent" must be displayed on the outer most garment; Rule 8.0 - Apprehension Procedures - clarifies where/when a BEA must report an apprehension or surveillance. If you wish to view the complete Rules, contact Ms. Peggy Anderson at (302) 672-5304. Any persons wishing to present views may submit them in writing, by May 1, 2017, to Delaware State Police, Professional Licensing Section, P. O. Box 430, Dover, DE 19903. The Board will hold its quarterly meeting Thursday, May 25, 2017, 10:00am, at the Tatnall Building, 150 Martin Luther King, Jr. Boulevard South, Room 112, Dover, DE.

***Please Note: The Regulatory Flexibility Analysis and Impact Statement for this regulation, as required by 29 Del.C. Ch. 104, is available at:**

http://regulations.delaware.gov/register/april2017/proposed/20 DE Reg 774RFA 04-01-17.pdf

5500 Bail Enforcement Agents

(Break in Continuity of Sections)

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APPENDIX "B"

DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

Division of Air Quality

STATE PLAN FOR THE REGULATION OF AIR EMISSIONS FROM MUNICIPAL SOLID WASTE LANDFILLS

May 11, 2017

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DELAWARE STATE PLAN TO REGULATE AIR EMISSIONS FROM MUNICIPAL SOLID WASTE LANDFILLS

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Delaware State Plan to Regulate Air Emissions from Municipal Solid Waste Landfills

I. Introduction

On March 12, 1996, the Environmental Protection Agency (EPA) promulgated emission guidelines (EG) for the control of landfill gas (LFG) emissions from existing municipal solid waste (MSW) landfills. The EG are found in Subpart Cc of 40 CFR Part 60. Effective August 29, 2016 the EPA finalized a new subpart that updates the EG and Compliance Times for existing Municipal Solid Waste Landfills to reflect changes to the population of landfills and the results of an EPA analysis of the timing and methods for reducing emissions. The revised EG is found in Subpart Cf of 40 CFR Part 60.

Landfill gas contains methane, carbon dioxide, and more than 100 different nonmethane organic compounds (NMOCs) including volatile organic compounds (VOCs), hazardous air pollutants (HAPs), and odorous compounds. Landfills are a significant source of methane, which is a potent greenhouse gas pollutant. The EPA has determined that affects from these compounds include ground-level ozone formation, cancer and noncancer health effects, odor nuisance, methane migration and fire hazard potential, and global warming.

The State of Delaware has developed this State Plan for imposing collection and control requirements on existing landfills, as required by the emission guidelines, Section 111(d) of the Clean Air Act, and 40 CFR Part 60 Subpart B, Adoption and Submittal of State Plans for Designated Facilities.

II. Legal Authorities and Enforceable Mechanism

Effective August 29, 2016, the EPA promulgated a new source performance standard (NSPS) for the control of emissions from new (i.e. newly constructed, reconstructed or modified) MSW landfills. The NSPS is found at 40 CFR Part 60 Subpart XXX (Subpart XXX). The EPA also promulgated emission guidelines for the development of State Plans to control the emissions from existing MSW landfills. The emission guideline is found at 40 CFR Part 60 Subpart Cf (Subpart Cf). 7 **Del.C.** Ch. 60 (Environmental Control) gives the Secretary of the Department of Natural Resources and Environmental Control (DNREC) the legal authority to adopt, implement, and enforce regulations that control the emissions of air contaminants into the atmosphere. Delaware's plan is to adopt into 7 **DE Admin. Code** 1120, "New Source Performance Standards", a new regulation, as Section 30, that incorporates Subpart XXX by reference. When adopting Subpart XXX, the MSW landfills being subject to Section 30 of 7 **DE Admin. Code** 1120 (Section 30) will be expanded to additionally include all MSW landfills that have accepted municipal solid waste after November 8, 1987 or MSW landfills that have additional capacity available to accept municipal solid waste. Thus, Delaware's 3 existing MSW landfills are also subject to Section 30; thereby enabling Delaware to meet the applicability requirements of Subpart Cf. Once promulgated, the regulation and this State Plan will be submitted to the EPA for approval pursuant to 40 CFR 60.27. Delaware has the requisite legal authorities to develop, implement and enforce this State Plan, specifically:

1. Section 6010 "Rules and regulations; plans" of 7 **Del.C.** Ch. 60 gives the Secretary the authority to adopt regulations that control the emissions of air contaminants, which includes the designated pollutants in Subpart Cf, into the atmosphere.

2. Section 6005 "Enforcement; civil and administrative penalties; expenses" of 7 **Del.C.** Ch. 60 gives the Secretary the authority to enforce any rule, regulation, or permit condition.

3. Section 6010 of 7 **Del.C.** Ch. 60, 7 **DE Admin. Code** 1102 "Permits," 7 **DE Admin. Code** 1117 "Source Monitoring, Recordkeeping and Reporting," 7 **DE Admin. Code** 1130 "Title V State Operating Permit Program," and Section 30, gives the Secretary the authority to obtain information necessary to determine compliance.

4. Section 6010 and section 6024 "Right of Entry" of 7 **Del.C.** Ch. 60, 7 **DE Admin. Code** 1102, 7 **DE Admin. Code** 1117, 7 **DE Admin. Code** 1130, and Section 30, gives the Secretary the

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

5. Section 6010 of 7 **Del.C**. Ch. 60, 7 **DE Admin. Code** 1102, 7 **DE Admin. Code** 1117, 7 **DE Admin. Code** 1130, and Section 30, gives the Secretary the authority to require the use of monitors and require emission reports of municipal solid waste landfill owners or operators.

6. Section 6014 "Regulatory and compliance information, facility performance and public information" of 7 **Del.C**. Ch. 60, 7 **DE Admin. Code** 1102, and 7 **DE Admin. Code** 1130 gives the Secretary the authority to make emission data available to the public.

The requisite legal authorities, which are available at the time of the submission of the State Plan, are provided in APPENDIX A of this State Plan.

The complete text of Subpart XXX, as adopted in Section 30, is provided in APPENDIX B of this State Plan. Other referenced documents are available from the Department upon request.

III. Adoption of 40 CFR Part 60 Subpart XXX by Reference

The State of Delaware is adopting Subpart XXX by reference with several changes that also make existing municipal solid waste landfills subject to Section 30. The adoption of this regulation will be incorporated into the State of Delaware "**Regulations Governing the Control of Air Pollution**" in Section 30. This regulation will read as follows:

DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

Division of Air Quality

1120 New Source Performance Standards

30.0 Standards of Performance for Municipal Solid Waste Landfills After July 11, 2017

The provisions of Subpart XXX of Part 60, Title 40 of the Code of Federal Regulations - "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, attached hereto, are hereby incorporated herein and adopted by reference, subject to the following changes:

30.1 Wherever the word "Administrator" appears it shall be replaced by the word "Department", with the exception of paragraphs 60.760(b) and 60.764(a)(5).

30.2 The ASTM Standard Test Method D6522-11 is incorporated herein and adopted by reference. The following definitions, subsections and test methods that are referenced in the text of the preceding adoption are also incorporated herein and adopted by reference as they appear in Title 40 of the Code of Federal Regulations, dated July 1, 2016:

30.2.1 The definition of "land application unit", "surface impoundment", "injection well", "waste pile" and "other types of RCRA Subtitle D wastes" as each of those terms is defined in 40 CFR 257.2.

30.2.2 The definition of "sludge" and "solid waste" as each of those terms is defined in 40 CFR 258.2.

30.2.3 The definition of "performance test" in 60.764(a)(3)(i), as the term is defined in 40 CFR 60.8.

30.2.4 The requirements of 40 CFR 51.166 and 52.21, as referenced in 60.764(c).

30.2.5 The requirements of 40 CFR 60.4, as referenced in 60.767(i)(2).

30.2.6 The requirements of 40 CFR 60.7(a)(1), as referenced in 60.767(a)(1).

30.2.7 The requirements of 40 CFR 60.7(a)(4), as referenced in 60.761 and 60.767(e).

30.2.8 The requirements of 40 CFR 60.8, as referenced in 60.764(b)(3)(i), 60.764(e)(1), 60.767(g), 60.767(h), and 60.767(i)(1).

30.2.9 The requirements of 40 CFR 60.17, as referenced in 60.766(a)(2)(ii) and 60.766(a)(2)(iii)(B).

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30.2.10 The requirements of 40 CFR 60.18, as referenced in 60.762(b)(2)(iii)(A) and 60.768(b)(4).

30.2.11 The requirements of 40 CFR 60.18(f)(3) and 60.18(f)(4), as referenced in 60.764(e).

30.2.12 The requirements of 40 CFR 258, as referenced in 60.767(k).

30.2.13 The requirements of 40 CFR 258.40, as referenced in 60.762(b)(2)(ii)(D)(2).

30.2.14 The requirements of 40 CFR 258.60, as referenced in 60.767(e).

30.2.15 Methods 2, 2E, 3, 3A, 3C, 18, 21, 25, 25A and 25C in appendix A of 40 CFR Part 60.

30.3 The title of Subpart XXX shall be replaced with the following language: "30.0 Standards of Performance for Municipal Solid Waste Landfills After July 11, 2017."

30.4 Section 60.760(a) shall be replaced with the following language: "The provisions of this subpart apply to each municipal solid waste landfill, open or closed, that commenced construction, reconstruction, or modification after July 17, 2014 or that has accepted waste after November 8, 1987 or that has additional capacity available to accept waste."

30.5 Section 60.762(a) shall be replaced with the following language: "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 must submit an initial design capacity report to the Department as provided in §60.767(a). The landfill may calculate design capacity in either megagrams or cubic meters for comparison with the exemption values. Any density conversions must be documented and submitted with the report. For purposes of 7 **DE Admin. Code** 1130, Title V State Operating Permit Program, 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 7 **DE Admin. Code** 1130, provided it is not a major source as defined in 7 **DE Admin. Code** 1130. Submittal of the initial design capacity report fulfills the requirements of this subpart except as provided for in paragraphs (a)(1) and (2) of this section."

30.6 Delete ", local, or tribal" in Sections 60.761, 60.767(a)(2)(i) and 60.767(a)(2)(ii).

30.7 Paragraph 60.762(b) 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 either comply with paragraph (b)(2) of this section or calculate an NMOC emission rate for the landfill using the procedures specified in §60.764. The NMOC emission rate must be recalculated annually, except as provided in §60.767(b)(1)(ii). 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 7 **DE Admin. Code** 1130. When a landfill is closed, and either never needed control or meets the conditions for control system removal specified in §60.762(b)(2)(v), a 7 **DE Admin. Code** 1130 operating permit is no longer required."

30.8 Section 60.762(b)(2)(ii) 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 in accordance with paragraph (b)(2)(ii)(A) or (B) of this section, whichever is applicable."

30.9 Section 60.762(b)(2)(ii)(A) shall be replaced with the following language: "*For MSW landfills that commenced construction, reconstruction, or modification on or after July 17, 2014.* The collection and control system must be started up in accordance with paragraph (b)(2)(ii)(A)(*1*) or (*2*) of this section, whichever is applicable."

30.10 Add new section 60.762(b)(2)(ii)(A)*(1)* with the following language: "Within 30 months of the first annual report in which the NMOC emission rate equals or exceeds 34 megagrams per year, unless Tier 2 or Tier 3 sampling demonstrates that the NMOC emission rate is less than 34 megagrams per year, as specified in §60.767(c)(4) or".

30.11 Add new section 60.762(b)(2)(ii)(A)*(2)* with the following language: "Within 30 months of the most recent NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year based on Tier 2, if the Tier 4 surface emissions monitoring shows a surface methane emission concentration of 500 parts per million methane or greater as specified in §60.767(c)(4)(iii)."

30.12 Section 60.762(b)(2)(ii)(B) shall be replaced with the following language: "*For all other subject MSW landfills.* As expeditiously as practicable but not later than January 8, 2018."

30.13 Section 60.762(c) shall be replaced with the following language: "For purposes of obtaining an operating permit under title V of the Clean Air Act, the owner or operator of an 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 7 **DE Admin. Code** 1130,

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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 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 7 **DE Admin. Code** 1130, becomes subject to the requirements of paragraph 5.1.1 of 7 **DE Admin. Code** 1130, regardless of when the design capacity report is actually submitted, no later than:".

30.14 Sections 60.762(c)(1), 60.767(a)(1)(i) and 60.767(b)(1)(i)(A) shall be replaced with the following language: "Ninety days after the date of commenced construction, modification, or reconstruction for MSW landfills that commenced construction, modification, or reconstruction on or after July 17, 2014 or".

30.15 Section 60.762(c)(2) and Section 60.767(b)(1)(i)(B) shall be replaced with the following language: "January 8, 2018 for all other subject MSW landfills."

30.16 Section 60.763(g) shall be replaced with the following language: "If monitoring demonstrates that the operational requirement in paragraphs (b), (c), or (d) of this section are not met, corrective action must be taken as specified in §60.765(a)(3) and (5) or §60.765(c). If corrective actions are taken, as specified in §60.765, the monitored exceedance is not a violation of the operational requirements in this section."

30.17 Section 60.767(a)(1)(ii) shall be replaced with the following language: "The date specified in a State construction or operating permit, if applicable, or January 8, 2018, whichever is earlier, for all other subject MSW landfills."

30.18 The final sentence in section 60.767(a)(2)(ii) shall be replaced with the following language: "The Department may request other reasonable information as may be necessary to verify the maximum design capacity of the landfill."

30.19 Section 60.767(i)(1)(ii) shall be replaced with the following language: "For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT Web site at the time of the test, you must submit the results of the performance test to the Department."

30.20 Section 60.767(k)(7) shall be replaced with the following language: "The initial report must contain items in paragraph (k)(1) through (6) of this section per year for the initial annual reporting period as well as for each of the previous 10 years, to the extent historical data are available in on-site records, and the report must be submitted no later than thirteen (13) months after the date of commenced construction, modification, or reconstruction for landfills that commenced construction, modification, or reconstruction on or after July 17, 2014 containing data for the first 12 months after August 29, 2016."

30.21 Delete and reserve sections 60.767(k)(7)(i) and 60.767(k)(7)(ii).

30.22 Section 60.768(c)(3) shall be replaced with the following language: "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 §60.762(b)(2)(iii) must 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 or federal regulatory requirements.)"

The complete text of Subpart XXX, as adopted in Section 30, is provided in APPENDIX B of this State Plan. All municipal solid waste landfills in Delaware are subject to Section 30.

IV. Source and Emission Inventories

Delaware has three municipal solid waste landfills that are subject to the requirements of this State Plan. All of these MSW landfills are currently accepting waste, have a design capacity greater than 2.5 million megagrams, and an uncontrolled NMOC emission rate of greater than 34 megagrams per year using Tier 1 procedures. These facilities along with the emission inventories are provided in the table below.

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Municipal Solid Waste Landfills Subject To Emission Guidelines in Subpart Cf					
Facility Name	**County**	**Design Capacity (Million Mg)**	**2016 Estimated NMOC Emissions (Uncontrolled)**	**Tier**	**Year Opened**
Cherry Island (NSWMC-2)	New Castle	21.203	53.45 Mg/year	1	10/85
Central Solid Waste Management Center (CSWMC)	Kent	8.313	38.38 Mg/year	1	10/80
Southern Solid Waste Management Center (SSWMC)	Sussex	7.628	29.78 Mg/year	1	10/84

Note that pursuant to Section 28 of 7 **DE Admin. Code** 1120 each of these three existing municipal solid waste landfills is currently subject to the requirements of 40 CFR Part 60 Subpart WWW.

V. Emission Standards

The emission standards for municipal solid waste landfills are those stated in Section 60.762 of Section 30. These standards include design capacity cutoff for applicability, NMOC emission limits, collection system requirements, types of control device requirements, and length of time of required control for municipal solid waste landfills. The test methods and procedures for determining compliance with the emission standards are those stated in Section 60.764 of Section 30.

The emission standards apply to any municipal solid waste landfill, open or closed, that commenced construction, reconstruction, or modification after July 17, 2014 or that has accepted waste after November 8, 1987 or that has additional capacity available to accept waste.

VI. Process for Review of Design Plans

For a landfill subject to the emission standards, the owner or operator must submit to the Department a Collection and Control Design Plan. This design plan must meet the requirements stated in Section 30.

As provided for in Section 30, the Department will review each submitted design plan and will, in writing, either approve it, disapprove it, or request that additional information be submitted.

VII. Compliance Schedules

The table below specifies the compliance schedule for existing municipal solid waste landfills in the State of Delaware.

Compliance Schedule for Existing Municipal Solid Waste Landfills	
State Plan Submittal to EPA	May 30, 2017
EPA approval of State Plan	Within 4 months of submittal to EPA
Final emission guideline compliance date	For NSWMC-2, CSWMC, and SSWMC, to be completed as expeditiously as possible but no later than 180 days from the effective date of Section 30

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VIII. Public Participation

A public hearing was held on April 24, 2017 at 6:00 pm in the Department of Natural Resources and Environmental Control's office located at 100 W. Water Street, Suite 6A, Dover, DE. Affidavits from the Delaware State News and the Sunday News Journal, and copies of the notices as they appeared in those publications on March 12, 2017 advertising the public hearing are provided in APPENDIX C of this State Plan. A list of the public hearing attendees and other public noticing is also provided in APPENDIX C.

IX. Source Surveillance, Compliance Assurance, and Enforcement

The affected facilities will be subject to the operational standards, test methods and procedures, compliance provisions, monitoring of operations, reporting requirements, and recordkeeping requirements specified in Section 30.

The Department will submit annual reports to the EPA which detail the progress in the enforcement of the State Plan. The first progress report will be submitted to the EPA one year following the approval of the State Plan. The annual report will contain the following information:

1. Enforcement actions initiated against a designated facility during the reporting period,

2. Identification of the achievement of any increments of progress required by the State Plan during the reporting period,

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

4. Submission of additional emission data to update previous progress reports, and

5. Emission inventory data for any municipal solid waste landfill that has accepted waste after November 8, 1987, or that has additional design capacity available to accept waste and that was not in operation at the time of State Plan development but began operation during the reporting period.

Technical reports on all performance testing conducted on the designated facilities, complete with concurrently recorded control device operating data will be retained by the Department and a copy will be sent to the Environmental Protection Agency, Region III.

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APPENDIX A

Legal Authorities

Legal Authority	Links on the Delaware General Assembly website
7 DE Code Chapter 60 - Subchapter I. General Provisions	http://delcode.delaware.gov/title7/c060/sc01/index.shtml
7 DE Code Chapter 60 - Subchapter II. Powers and Duties of Secretary and Department	http://delcode.delaware.gov/title7/c060/sc02/index.shtml
7 DE Admin Code 1102 - Permits	http://regulations.delaware.gov/AdminCode/title7/1000/1100/1102.shtml#TopOfPage
7 DE Admin Code 1117 - Source Monitoring, Record Keeping And Reporting	http://regulations.delaware.gov/AdminCode/title7/1000/1100/1117.shtml#TopOfPage
7 DE Admin Code 1130 - Title V State Operating Permit Program	http://regulations.delaware.gov/AdminCode/title7/1000/1100/1130.shtml#TopOfPage

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APPENDIX B

<u>40 CFR Part 60 Subpart XXX, as adopted in Section 30</u>

Appendix B illustrates the changes made in Section 30 of 7 DE Admin. Code 1120 to 40 CFR Part 60 Subpart XXX. The underline indicates additions made to Subpart XXX and the strikeouts indicate deletions made to Subpart XXX.

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~~Subpart XXX~~ — 30.0 Standards of Performance for Municipal Solid Waste Landfills ~~That Commenced Construction, Reconstruction, or Modification After July 17, 2014~~ After July 11, 2017

§60.760 Applicability, designation of affected source, and delegation of authority.

(a) The provisions of this subpart apply to each municipal solid waste landfill, open or closed, that commenced construction, reconstruction, or modification after July 17, 2014 or that has accepted waste after November 8, 1987 or that has additional capacity available to accept waste. ~~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.~~

(b) The following authorities are retained by the Administrator and are not transferred to the state: §60.764(a)(5).

(c) Activities required by or conducted pursuant to a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Resource Conservation and Recovery Act (RCRA), or state remedial action are not considered construction, reconstruction, or modification for purposes of this subpart.

§60.761 Definitions.

As used in this subpart, all terms not defined herein 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 area means a separately lined area of an MSW landfill in which solid waste is no longer being placed. If additional solid waste is placed in that area of the landfill, that landfill area is no longer closed. The area must be separately lined to ensure that the landfill gas does not migrate between open and closed areas.

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 §60.762(b)(2)(i).

Corrective action analysis means a description of all reasonable interim and long-term measures, if any, that are available, and an explanation of why the selected corrective action(s) is/are the best alternative(s), including, but not limited to, considerations of cost effectiveness, technical feasibility, safety, and secondary impacts.

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

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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.

Gust means the highest instantaneous wind speed that occurs over a 3-second running average.

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). Household waste does not include fully segregated yard waste. Segregated yard waste means vegetative matter resulting exclusively from the cutting of grass, the pruning and/or removal of bushes, shrubs, and trees, the weeding of gardens, and other landscaping maintenance activities. Household waste does not include construction, renovation, or demolition wastes, even if originating from a household.

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 chapter. 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 waste. 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.

Leachate recirculation means the practice of taking the leachate collected from the landfill and reapplying it to the landfill by any of one of a variety of methods, including pre-wetting of the waste, direct discharge into the working face, spraying, infiltration ponds, vertical injection wells, horizontal gravity distribution systems, and pressure distribution systems.

Modification means an increase in the permitted volume design capacity of the landfill 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.

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 §60.764.

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.

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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.

Root cause analysis means an assessment conducted through a process of investigation to determine the primary cause, and any other contributing causes, of positive pressure at a wellhead.

Segregated yard waste means vegetative matter resulting exclusively from the cutting of grass, the pruning and/or removal of bushes, shrubs, and trees, the weeding of gardens, and other landscaping maintenance activities.

Sludge means the term sludge as defined in 40 CFR 258.2.

Solid waste means the term solid waste as defined in 40 CFR 258.2.

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.

Treated landfill gas means landfill gas processed in a treatment system as defined in this subpart.

Treatment system means a system that filters, de-waters, and compresses landfill gas for sale or beneficial use.

Untreated landfill gas means any landfill gas that is not treated landfill gas.

§60.762 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 must submit an initial design capacity report to the ~~Administrator~~ Department as provided in §60.767(a). The landfill may calculate design capacity in either megagrams or cubic meters for comparison with the exemption values. Any density conversions must be documented and submitted with the report. For purposes of 7 **DE Admin. Code** 1130, Title V State Operating Permit Program, 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 7 **DE Admin. Code** 1130, provided it is not a major source as defined in 7 **DE Admin. Code** 1130. Submittal of the initial design capacity report fulfills the requirements of this subpart except as provided for in paragraphs (a)(1) and (2) of this section.

(1) The owner or operator must submit to the ~~Administrator~~ Department an amended design capacity report, as provided for in §60.767(a)(3).

(2) When an increase in the maximum design capacity of a landfill exempted from the provisions of §60.762(b) through §60.769 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 must comply with the provisions 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, must either comply with paragraph (b)(2) of this section or calculate an NMOC emission rate for the landfill using the procedures specified in §60.764. The NMOC emission rate must be recalculated annually, except as provided in §60.767(b)(1)(ii). 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~~ 7 **DE Admin. Code** 1130. When a landfill is closed, and either never needed control or meets the conditions for control system removal specified in §60.762(b)(2)(v), a 7 **DE Admin. Code** 1130 operating permit is no longer required.

(1) If the calculated NMOC emission rate is less than 34 megagrams per year, the owner or operator must:

(i) Submit an annual NMOC emission rate emission report to the ~~Administrator~~ Department, except as provided for in §60.767(b)(1)(ii); and

(ii) Recalculate the NMOC emission rate annually using the procedures specified in §60.764(a)(1) until such time as the calculated NMOC emission rate is equal to or greater than 34 megagrams per year,

or the landfill is closed.

(A) If the calculated NMOC emission rate, upon initial calculation or annual recalculation required in paragraph (b) of this section, is equal to or greater than 34 megagrams per year, the owner or operator must either: Comply with paragraph (b)(2) of this section; calculate NMOC emissions using the next higher tier in §60.764; or conduct a surface emission monitoring demonstration using the procedures specified in §60.764(a)(6).

(B) If the landfill is permanently closed, a closure report must be submitted to the ~~Administrator~~ Department as provided for in §60.767(e).

(2) If the calculated NMOC emission rate is equal to or greater than 34 megagrams per year using Tier 1, 2, or 3 procedures, the owner or operator must either:

(i) Calculated *NMOC Emission Rate.* Submit a collection and control system design plan prepared by a professional engineer to the ~~Administrator~~ Department within 1 year as specified in §60.767(c); calculate NMOC emissions using the next higher tier in §60.764; or conduct a surface emission monitoring demonstration using the procedures specified in §60.764(a)(6). The collection and control system must meet the requirements in paragraphs (b)(2)(ii) and (iii) of this section.

(ii) *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 in accordance with paragraph (b)(2)(ii)(A) or (B) of this section, whichever is applicable. ~~within 30 months after:~~

(A) *For MSW landfills that commenced construction, reconstruction, or modification on or after July 17, 2014.* The collection and control system must be started up in accordance with paragraph (b)(2)(ii)(A)(*1*) or (*2*) of this section, whichever is applicable. ~~The first annual report in which the NMOC emission rate equals or exceeds 34 megagrams per year, unless Tier 2 or Tier 3 sampling demonstrates that the NMOC emission rate is less than 34 megagrams per year, as specified in §60.767(c)(4); or~~

(1) Within 30 months of the first annual report in which the NMOC emission rate equals or exceeds 34 megagrams per year, unless Tier 2 or Tier 3 sampling demonstrates that the NMOC emission rate is less than 34 megagrams per year, as specified in §60.767(c)(4) or

(2) Within 30 months of the most recent NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year based on Tier 2, if the Tier 4 surface emissions monitoring shows a surface methane emission concentration of 500 parts per million methane or greater as specified in §60.767(c)(4)(iii).

(B) *For all other subject MSW landfills.* As expeditiously as practicable but not later than January 8, 2018. ~~The most recent NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year based on Tier 2, if the Tier 4 surface emissions monitoring shows a surface methane emission concentration of 500 parts per million methane or greater as specified in §60.767(c)(4)(iii).~~

(C) An active collection system must:

(*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 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 5 years or more if active; or 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.

(D) A passive collection system must:

(*1*) Comply with the provisions specified in paragraphs (b)(2)(ii)(C)(*1*), (*2*), and (*3*) 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 must be installed as required under 40 CFR 258.40.

(iii) *Control system.* 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) A non-enclosed flare designed and operated in accordance with the parameters established in §60.18 except as noted in §60.764(e); or

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(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 must 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 §60.764(d). The performance test is not required for boilers and process heaters with design heat input capacities equal to or greater than 44 megawatts that burn landfill gas for compliance with this subpart.

(*1*) If a boiler or process heater is used as the control device, the landfill gas stream must be introduced into the flame zone.

(*2*) The control device must be operated within the parameter ranges established during the initial or most recent performance test. The operating parameters to be monitored are specified in §60.766;

(C) Route the collected gas to a treatment system that processes the collected gas for subsequent sale or beneficial use such as fuel for combustion, production of vehicle fuel, production of high-Btu gas for pipeline injection, or use as a raw material in a chemical manufacturing process. Venting of treated landfill gas to the ambient air is not allowed. If the treated landfill gas cannot be routed for subsequent sale or beneficial use, then the treated landfill gas must be controlled according to either paragraph (b)(2)(iii)(A) or (B) of this section.

(D) All emissions from any atmospheric vent from the gas treatment system are subject to the requirements of paragraph (b)(2)(iii)(A) or (B) of this section. For purposes of this subpart, atmospheric vents located on the condensate storage tank are not part of the treatment system and are exempt from the requirements of paragraph (b)(2)(iii)(A) or (B) of this section.

(iv) *Operation.* Operate the collection and control device installed to comply with this subpart in accordance with the provisions of §§60.763, 60.765 and 60.766.

(v) *Removal criteria.* The collection and control system may be capped, removed, or decommissioned if the following criteria are met:

(A) The landfill is a closed landfill (as defined in §60.761). A closure report must be submitted to the ~~Administrator~~ Department as provided in §60.767(e).

(B) The collection and control system has been in operation a minimum of 15 years or the landfill owner or operator demonstrates that the GCCS will be unable to operate for 15 years due to declining gas flow.

(C) Following the procedures specified in §60.764(b), the calculated NMOC emission rate at the landfill is less than 34 megagrams per year on three successive test dates. The test dates must 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 Clean Air Act, the owner or operator of an 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~~ 7 **DE Admin. Code** 1130, 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 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~~ 7 **DE Admin. Code** 1130, becomes subject to the requirements of ~~§70.5(a)(1)(i) or §71.5(a)(1)(i) of this chapter~~ paragraph 5.1.1 of 7 **DE Admin. Code** 1130, regardless of when the design capacity report is actually submitted, no later than:

(1) ~~November 28, 2016 for MSW landfills that commenced construction, modification, or reconstruction after July 17, 2014 but before August 29, 2016;~~ Ninety days after the date of commenced construction, modification, or reconstruction for MSW landfills that commenced construction, modification, or reconstruction on or after July 17, 2014 or

(2) ~~Ninety days after the date of commenced construction, modification, or reconstruction for MSW landfills that commence construction, modification, or reconstruction after August 29, 2016~~ January 8, 2018 for all other subject MSW landfills.

(d) When an MSW landfill subject to this subpart is closed as defined in this subpart, the owner or

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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.

§60.763 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 §60.762(b)(2) must:

(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 must record instances when positive pressure occurs in efforts to avoid a fire. These records must be submitted with the annual reports as provided in §60.767(g)(1);

(2) Use of a geomembrane or synthetic cover. The owner or operator must 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 must be approved by the ~~Administrator~~ Department as specified in §60.767(c);

(c) Operate each interior wellhead in the collection system with a landfill gas temperature less than 55 degrees Celsius (131 degrees Fahrenheit). The owner or operator may establish a higher operating temperature value at a particular well. A higher operating value demonstration must be submitted to the ~~Administrator~~ Department for approval and must include supporting data demonstrating that the elevated parameter neither causes fires nor significantly inhibits anaerobic decomposition by killing methanogens. The demonstration must satisfy both criteria in order to be approved (*i.e.*, neither causing fires nor killing methanogens is acceptable).

(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 must conduct surface testing using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in §60.765(d). The owner or operator must conduct surface testing around the perimeter of the collection area and along a pattern that traverses the landfill at no more than 30-meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover and all cover penetrations. Thus, the owner or operator must monitor any openings that are within an area of the landfill where waste has been placed and a gas collection system is required. The owner or operator may establish an alternative traversing pattern that ensures equivalent coverage. A surface monitoring design plan must 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 §60.762(b)(2)(iii). In the event the collection or control system is not operating, the gas mover system must be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere must be closed within 1 hour of the collection or control system not operating; and

(f) Operate the control 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 must be taken as specified in §60.765(a)(3) and (5) or §60.765(c). If

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corrective actions are taken, as specified in §60.765, the monitored exceedance is not a violation of the operational requirements in this section.

§60.764 Test methods and procedures.

(a)(1) *NMOC Emission Rate.* The landfill owner or operator must calculate the NMOC emission rate using either Equation 1 provided in paragraph (a)(1)(i) of this section or Equation 2 provided in paragraph (a)(1)(ii) of this section. Both Equation 1 and Equation 2 may be used if the actual year-to-year solid waste acceptance rate is known, as specified in paragraph (a)(1)(i) of this section, 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) of this section, for part of the life of the landfill. The values to be used in both Equation 1 and Equation 2 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 30-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.

(i)(A) Equation 1 must be used if the actual year-to-year solid waste acceptance rate is known.

$$M_{NMOC} = \sum_{i=1}^{n} 2\,k\,L_o M_i \left(e^{-kt_i}\right)\left(C_{NMOC}\right)\left(3.6\times10^{-9}\right) \qquad \text{(Eq. 1)}$$

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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.

(B) 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 documentation of the nature and amount of such wastes is maintained.

(ii)(A) Equation 2 must be used if the actual year-to-year solid waste acceptance rate is unknown.

$$M_{NMOC} = 2L_oR\left(e^{-kc}-e^{-kt}\right)C_{NMOC}\left(3.6\times10^{-9}\right) \qquad \text{(Eq.2)}$$

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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 = 0 and $e^{-kc} = 1$.

3.6×10^{-9} = Conversion factor.

(B) 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 of R, if documentation of the nature and amount of such wastes is maintained.

(2) *Tier 1.* The owner or operator must compare the calculated NMOC mass emission rate to the standard of 34 megagrams per year.

(i) If the NMOC emission rate calculated in paragraph (a)(1) of this section is less than 34 megagrams per year, then the landfill owner or operator must submit an NMOC emission rate report according to §60.767(b), and must recalculate the NMOC mass emission rate annually as required under

§60.762(b).

(ii) If the calculated NMOC emission rate as calculated in paragraph (a)(1) of this section is equal to or greater than 34 megagrams per year, then the landfill owner must either:

(A) Submit a gas collection and control system design plan within 1 year as specified in §60.767(c) and install and operate a gas collection and control system within 30 months according to §60.762(b)(2)(ii) and (iii);

(B) Determine a site-specific NMOC concentration and recalculate the NMOC emission rate using the Tier 2 procedures provided in paragraph (a)(3) of this section; or

(C) Determine a site-specific methane generation rate constant and recalculate the NMOC emission rate using the Tier 3 procedures provided in paragraph (a)(4) of this section.

(3) *Tier 2.* The landfill owner or operator must determine the site-specific NMOC concentration using the following sampling procedure. The landfill owner or operator must install at least two sample probes per hectare, evenly distributed over the 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 probes should be evenly distributed across the sample area. The sample probes should be located to avoid known areas of nondegradable solid waste. The owner or operator must 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. 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 alternative 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 more than the required number of samples are taken, all samples must be used in the analysis. The landfill owner or operator must divide the NMOC concentration from Method 25 or 25C of appendix A of this part by six to convert from C_{NMOC} as carbon to C_{NMOC} 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 as the two sampling probe per hectare requirement. For active collection systems, samples may be collected from the common header pipe. The sample location on the common header pipe must be before any gas moving, condensate removal, or treatment system equipment. For active collection systems, a minimum of three samples must be collected from the header pipe.

(i) Within 60 days after the date of completing each performance test (as defined in §60.8), the owner or operator must submit the results according to §60.767(i)(1).

(ii) The landfill owner or operator must recalculate the NMOC mass emission rate using Equation 1 or Equation 2 provided in paragraph (a)(1)(i) or (a)(1)(ii) of this section and using the average site-specific NMOC concentration from the collected samples instead of the default value provided in paragraph (a)(1) of this section.

(iii) If the resulting NMOC mass emission rate is less than 34 megagrams per year, then the owner or operator must submit a periodic estimate of NMOC emissions in an NMOC emission rate report according to §60.767(b)(1), and must recalculate the NMOC mass emission rate annually as required under §60.762(b). The site-specific NMOC concentration must be retested every 5 years using the methods specified in this section.

(iv) If the NMOC mass emission rate as calculated using the Tier 2 site-specific NMOC concentration is equal to or greater than 34 megagrams per year, the landfill owner or operator must either:

(A) Submit a gas collection and control system design plan within 1 year as specified in §60.767(c) and install and operate a gas collection and control system within 30 months according to §60.762(b)(2)(ii) and (iii);

(B) Determine a site-specific methane generation rate constant and recalculate the NMOC emission rate using the site-specific methane generation rate using the Tier 3 procedures specified in paragraph (a)(4) of this section; or

(C) Conduct a surface emission monitoring demonstration using the Tier 4 procedures specified in

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paragraph (a)(6) of this section.

(4) *Tier 3.* The site-specific methane generation rate constant must be determined using the procedures provided in Method 2E of appendix A of this part. The landfill owner or operator must estimate the NMOC mass emission rate using Equation 1 or Equation 2 in paragraph (a)(1)(i) or (ii) of this section and using a site-specific methane generation rate constant, 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 must compare the resulting NMOC mass emission rate to the standard of 34 megagrams per year.

(i) If the NMOC mass emission rate as calculated using the Tier 2 site-specific NMOC concentration and Tier 3 site-specific methane generation rate is equal to or greater than 34 megagrams per year, the owner or operator must either:

(A) Submit a gas collection and control system design plan within 1 year as specified in §60.767(c) and install and operate a gas collection and control system within 30 months according to §60.762(b)(2)(ii) and (iii); or

(B) Conduct a surface emission monitoring demonstration using the Tier 4 procedures specified in paragraph (a)(6) of this section.

(ii) If the NMOC mass emission rate is less than 34 megagrams per year, then the owner or operator must recalculate the NMOC mass emission rate annually using Equation 1 or Equation 2 in paragraph (a)(1) of this section and using the site-specific Tier 2 NMOC concentration and Tier 3 methane generation rate constant and submit a periodic NMOC emission rate report as provided in §60.767(b)(1). The calculation of the methane generation rate constant is performed only once, and the value obtained from this test must be used in all subsequent annual NMOC emission rate calculations.

(5) *Other methods.* The owner or operator may use other methods to determine the NMOC concentration or a site-specific methane generation rate constant as an alternative to the methods required in paragraphs (a)(3) and (4) of this section if the method has been approved by the Administrator.

(6) *Tier 4.* The landfill owner or operator must demonstrate that surface methane emissions are below 500 parts per million. Surface emission monitoring must be conducted on a quarterly basis using the following procedures. Tier 4 is allowed only if the landfill owner or operator can demonstrate that NMOC emissions are greater than or equal to 34 Mg/yr but less than 50 Mg/yr using Tier 1 or Tier 2. If both Tier 1 and Tier 2 indicate NMOC emissions are 50 Mg/yr or greater, then Tier 4 cannot be used. In addition, the landfill must meet the criteria in paragraph (a)(6)(viii) of this section.

(i) The owner or operator must measure surface concentrations of methane along the entire perimeter of the landfill and along a pattern that traverses the landfill at no more than 30-meter intervals using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in §60.765(d).

(ii) The background concentration must be determined by moving the probe inlet upwind and downwind at least 30 meters from the waste mass boundary of the landfill.

(iii) Surface emission monitoring must be performed in accordance with section 8.3.1 of Method 21 of appendix A of this part, except that the probe inlet must be placed no more than 5 centimeters above the landfill surface; the constant measurement of distance above the surface should be based on a mechanical device such as with a wheel on a pole, except as described in paragraph (a)(6)(iii)(A) of this section.

(A) The owner or operator must use a wind barrier, similar to a funnel, when onsite average wind speed exceeds 4 miles per hour or 2 meters per second or gust exceeding 10 miles per hour. Average on-site wind speed must also be determined in an open area at 5-minute intervals using an on-site anemometer with a continuous recorder and data logger for the entire duration of the monitoring event. The wind barrier must surround the SEM monitor, and must be placed on the ground, to ensure wind turbulence is blocked. SEM cannot be conducted if average wind speed exceeds 25 miles per hour.

(B) Landfill surface areas where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover, and all cover penetrations must also be monitored using a device meeting the specifications provided in §60.765(d).

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(iv) Each owner or operator seeking to comply with the Tier 4 provisions in paragraph (a)(6) of this section must maintain records of surface emission monitoring as provided in §60.768(g) and submit a Tier 4 surface emissions report as provided in §60.767(c)(4)(iii).

(v) If there is any measured concentration of methane of 500 parts per million or greater from the surface of the landfill, the owner or operator must submit a gas collection and control system design plan within 1 year of the first measured concentration of methane of 500 parts per million or greater from the surface of the landfill according to §60.767(c) and install and operate a gas collection and control system according to §60.762(b)(2)(ii) and (iii) within 30 months of the most recent NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year based on Tier 2.

(vi) If after four consecutive quarterly monitoring periods at a landfill, other than a closed landfill, there is no measured concentration of methane of 500 parts per million or greater from the surface of the landfill, the owner or operator must continue quarterly surface emission monitoring using the methods specified in this section.

(vii) If after four consecutive quarterly monitoring periods at a closed landfill there is no measured concentration of methane of 500 parts per million or greater from the surface of the landfill, the owner or operator must conduct annual surface emission monitoring using the methods specified in this section.

(viii) If a landfill has installed and operates a collection and control system that is not required by this subpart, then the collection and control system must meet the following criteria:

(A) The gas collection and control system must have operated for 6,570 out of 8,760 hours preceding the Tier 4 surface emissions monitoring demonstration.

(B) During the Tier 4 surface emissions monitoring demonstration, the gas collection and control system must operate as it normally would to collect and control as much landfill gas as possible.

(b) After the installation and startup of a collection and control system in compliance with this subpart, the owner or operator must calculate the NMOC emission rate for purposes of determining when the system can be capped, removed or decommissioned as provided in §60.762(b)(2)(v), using Equation 3:

$$M_{NMOC} = 1.89 \times 10^{-3} Q_{LFG} C_{NMOC} \qquad \text{(Eq. 3)}$$

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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}, must be determined by measuring the total landfill gas flow rate at the common header pipe that leads to the control system using a gas flow measuring device calibrated according to the provisions of section 10 of Method 2E of appendix A of this part.

(2) The average NMOC concentration, C_{NMOC}, must 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 25 or Method 25C. The sample location on the common header pipe must be before any condensate removal or other gas refining units. The landfill owner or operator must divide the NMOC concentration from Method 25 or 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~~ Department.

(i) Within 60 days after the date of completing each performance test (as defined in §60.8), the owner or operator must submit the results of the performance test, including any associated fuel analyses, according to §60.767(i)(1).

(ii) [Reserved]

(c) When calculating emissions for Prevention of Significant Deterioration purposes, the owner or operator of each MSW landfill subject to the provisions of this subpart must estimate the NMOC emission rate for comparison to the Prevention of Significant Deterioration major source and significance levels in §§51.166 or 52.21 of this chapter using Compilation of Air Pollutant Emission Factors, Volume I:

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Stationary Point and Area Sources (AP-42) or other approved measurement procedures.

(d) For the performance test required in §60.762(b)(2)(iii)(B), Method 25 or 25C (Method 25C may be used at the inlet only) of appendix A of this part must be used to determine compliance with the 98 weight-percent efficiency or the 20 parts per million by volume outlet concentration level, unless another method to demonstrate compliance has been approved by the ~~Administrator~~ Department as provided by §60.767(c)(2). Method 3, 3A, or 3C must 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. Method 18 may be used in conjunction with Method 25A on a limited basis (compound specific, *e.g.*, methane) or Method 3C may be used to determine methane. The methane as carbon should be subtracted from the Method 25A total hydrocarbon value as carbon to give NMOC concentration as carbon. The landowner or operator must divide the NMOC concentration as carbon by 6 to convert from the CNMOC as carbon to CNMOC as hexane. Equation 4 must be used to calculate efficiency:

$$\text{Control Efficiency} = (NMOC_{in} - NMOC_{out})/(NMOC_{in}) \qquad \text{(Eq. 4)}$$

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Where:

$NMOC_{in}$ = Mass of NMOC entering control device.

$NMOC_{out}$ = Mass of NMOC exiting control device.

(e) For the performance test required in §60.762(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 components, 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).

(1) Within 60 days after the date of completing each performance test (as defined in §60.8), the owner or operator must submit the results of the performance tests, including any associated fuel analyses, required by §60.764(b) or (d) according to §60.767(i)(1).

(2) [Reserved]

§60.765 Compliance provisions.

(a) Except as provided in §60.767(c)(2), the specified methods in paragraphs (a)(1) through (6) of this section must be used to determine whether the gas collection system is in compliance with §60.762(b)(2)(ii).

(1) For the purposes of calculating the maximum expected gas generation flow rate from the landfill to determine compliance with §60.762(b)(2)(ii)(C)(*1*), either Equation 5 or Equation 6 must be used. The methane generation rate constant (k) and methane generation potential (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~~ Department. If k has been determined as specified in §60.764(a)(4), the value of k determined from the test must be used. A value of no more than 15 years must 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:

$$Q_m = 2L_oR\,(e^{-kc} - e^{-kt}) \qquad \text{(Eq. 5)}$$

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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

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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:

$$Q_M = \sum_{i=1}^{n} 2kL_0M_i(e^{-kt_i}) \qquad \text{(Eq. 6)}$$

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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, Equation 5 or Equation 6 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 Equation 5 or Equation 6 in paragraphs (a)(1)(i) or (ii) of this section or other methods must 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 §60.762(b)(2)(ii)(C)(2), the owner or operator must design a system of vertical wells, horizontal collectors, or other collection devices, satisfactory to the ~~Administrator~~ Department, 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 §60.762(b)(2)(ii)(C)(*3*), the owner or operator must measure gauge pressure in the gas collection header applied to each individual well, monthly. If a positive pressure exists, action must be initiated to correct the exceedance within 5 calendar days, except for the three conditions allowed under §60.763(b). Any attempted corrective measure must not cause exceedances of other operational or performance standards.

(i) If negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement of positive pressure, the owner or operator must conduct a root cause analysis and correct the exceedance as soon as practicable, but no later than 60 days after positive pressure was first measured. The owner or operator must keep records according to §60.768(e)(3).

(ii) If corrective actions cannot be fully implemented within 60 days following the positive pressure measurement for which the root cause analysis was required, the owner or operator must also conduct a corrective action analysis and develop an implementation schedule to complete the corrective action(s) as soon as practicable, but no more than 120 days following the positive pressure measurement. The owner or operator must submit the items listed in §60.767(g)(7) as part of the next annual report. The owner or operator must keep records according to §60.768(e)(4).

(iii) If corrective action is expected to take longer than 120 days to complete after the initial exceedance, the owner or operator must submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the ~~Administrator~~ Department, according to §60.767(g)(7) and §60.767(j). The owner or operator must keep records according to §60.768(e)(5).

(4) [Reserved]

(5) For the purpose of identifying whether excess air infiltration into the landfill is occurring, the owner or operator must monitor each well monthly for temperature as provided in §60.763(c). If a well exceeds the operating parameter for temperature, action must be initiated to correct the exceedance within 5 calendar days. Any attempted corrective measure must not cause exceedances of other operational or performance standards.

(i) If a landfill gas temperature less than 55 degrees Celsius (131 degrees Fahrenheit) cannot be achieved within 15 calendar days of the first measurement of landfill gas temperature greater than 55 degrees Celsius (131 degrees Fahrenheit), the owner or operator must conduct a root cause analysis and

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correct the exceedance as soon as practicable, but no later than 60 days after a landfill gas temperature greater than 55 degrees Celsius (131 degrees Fahrenheit) was first measured. The owner or operator must keep records according to §60.768(e)(3).

(ii) If corrective actions cannot be fully implemented within 60 days following the positive pressure measurement for which the root cause analysis was required, the owner or operator must also conduct a corrective action analysis and develop an implementation schedule to complete the corrective action(s) as soon as practicable, but no more than 120 days following the measurement of landfill gas temperature greater than 55 degrees Celsius (131 degrees Fahrenheit). The owner or operator must submit the items listed in §60.767(g)(7) as part of the next annual report. The owner or operator must keep records according to §60.768(e)(4).

(iii) If corrective action is expected to take longer than 120 days to complete after the initial exceedance, the owner or operator must submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the ~~Administrator~~ Department, according to §60.767(g)(7) and §60.767(j). The owner or operator must keep records according to §60.768(e)(5).

(6) An owner or operator seeking to demonstrate compliance with §60.762(b)(2)(ii)(C)(4) through the use of a collection system not conforming to the specifications provided in §60.769 must provide information satisfactory to the ~~Administrator~~ Department as specified in §60.767(c)(3) demonstrating that off-site migration is being controlled.

(b) For purposes of compliance with §60.763(a), each owner or operator of a controlled landfill must place each well or design component as specified in the approved design plan as provided in §60.767(c). Each well must be installed no later than 60 days after the date on which the initial solid waste has been in place for a period of:

(1) Five (5) years or more if active; or

(2) Two (2) years or more if closed or at final grade.

(c) The following procedures must be used for compliance with the surface methane operational standard as provided in §60.763(d).

(1) After installation and startup of the gas collection system, the owner or operator must 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 must 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 must be performed in accordance with section 8.3.1 of Method 21 of appendix A of this part, except that the probe inlet must be placed within 5 to 10 centimeters of the ground. Monitoring must be performed during typical meteorological conditions.

(4) Any reading of 500 parts per million or more above background at any location must be recorded as a monitored exceedance and the actions specified in paragraphs (c)(4)(i) through (v) of this section must be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements of §60.763(d).

(i) The location of each monitored exceedance must be marked and the location and concentration recorded.

(ii) Cover maintenance or adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of each exceedance must be made and the location must 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 must be taken and the location must 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 must be taken, and no further monitoring of that location is required until the action specified in paragraph (c)(4)(v) of this section 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 must be re-monitored 1 month from the initial exceedance. If the 1-month re-monitoring 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 re-monitoring shows an exceedance, the actions specified in paragraph (c)(4)(iii) or (v) of this section must 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 must 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~~ Department for approval.

(5) The owner or operator must 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 or §60.764(a)(6) must comply with the following instrumentation specifications and procedures for surface emission monitoring devices:

(1) The portable analyzer must meet the instrument specifications provided in section 6 of Method 21 of appendix A of this part, except that "methane" replaces all references to "VOC".

(2) The calibration gas must be methane, diluted to a nominal concentration of 500 parts per million in air.

(3) To meet the performance evaluation requirements in section 8.1 of Method 21 of appendix A of this part, the instrument evaluation procedures of section 8.1 of Method 21 of appendix A of this part must be used.

(4) The calibration procedures provided in sections 8 and 10 of Method 21 of appendix A of this part must be followed immediately before commencing a surface monitoring survey.

(e) The provisions of this subpart apply at all times, including periods of startup, shutdown or malfunction. During periods of startup, shutdown, and malfunction, you must comply with the work practice specified in §60.763(e) in lieu of the compliance provisions in §60.765.

§60.766 Monitoring of operations.

Except as provided in §60.767(c)(2):

(a) Each owner or operator seeking to comply with §60.762(b)(2)(ii)(C) for an active gas collection system must 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 §60.765(a)(3); and

(2) Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as follows:

(i) The nitrogen level must be determined using Method 3C, unless an alternative test method is established as allowed by §60.767(c)(2).

(ii) Unless an alternative test method is established as allowed by §60.767(c)(2), the oxygen level must be determined by an oxygen meter using Method 3A, 3C, or ASTM D6522-11 (incorporated by reference, see §60.17). Determine the oxygen level by an oxygen meter using Method 3A, 3C, or ASTM D6522-11 (if sample location is prior to combustion) except that:

(A) The span must be set between 10 and 12 percent oxygen;

(B) A data recorder is not required;

(C) Only two calibration gases are required, a zero and span;

(D) A calibration error check is not required;

(E) The allowable sample bias, zero drift, and calibration drift are ±10 percent.

(iii) A portable gas composition analyzer may be used to monitor the oxygen levels provided:

(A) The analyzer is calibrated; and

(B) The analyzer meets all quality assurance and quality control requirements for Method 3A or ASTM D6522-11 (incorporated by reference, see §60.17).

(3) Monitor temperature of the landfill gas on a monthly basis as provided in §60.765(a)(5). The

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temperature measuring device must be calibrated annually using the procedure in 40 CFR part 60, appendix A-1, Method 2, Section 10.3.

(b) Each owner or operator seeking to comply with §60.762(b)(2)(iii) using an enclosed combustor must 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 a minimum accuracy of ±1 percent of the temperature being measured expressed in degrees Celsius or ±0.5 degrees Celsius, whichever is greater. A temperature monitoring device is not required for boilers or process heaters with design heat input capacity equal to or greater than 44 megawatts.

(2) A device that records flow to the control device and bypass of the control device (if applicable). The owner or operator must:

(i) Install, calibrate, and maintain a gas flow rate measuring device that must record the flow to the control device at least every 15 minutes; and

(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 must 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 §60.762(b)(2)(iii) using a non-enclosed flare must 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 the flare and bypass of the flare (if applicable). The owner or operator must:

(i) Install, calibrate, and maintain a gas flow rate measuring device that records the flow to the control device at least every 15 minutes; and

(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 must 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 §60.762(b)(2)(iii) using a device other than a non-enclosed flare or an enclosed combustor or a treatment system must provide information satisfactory to the ~~Administrator~~ Department as provided in §60.767(c)(2) describing the operation of the control device, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The ~~Administrator~~ Department must review the information and either approve it, or request that additional information be submitted. The ~~Administrator~~ Department may specify additional appropriate monitoring procedures.

(e) Each owner or operator seeking to install a collection system that does not meet the specifications in §60.769 or seeking to monitor alternative parameters to those required by §§60.763 through 60.766 must provide information satisfactory to the ~~Administrator~~ Department as provided in §60.767(c)(2) and (3) describing the design and operation of the collection system, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The ~~Administrator~~ Department may specify additional appropriate monitoring procedures.

(f) Each owner or operator seeking to demonstrate compliance with the 500 parts per million surface methane operational standard in §60.763(d) must monitor surface concentrations of methane according to the procedures in §60.765(c) and the instrument specifications in §60.765(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.

(g) Each owner or operator seeking to demonstrate compliance with §60.762(b)(2)(iii) using a landfill gas treatment system must maintain and operate all monitoring systems associated with the treatment system in accordance with the site-specific treatment system monitoring plan required in §60.768(b)(5)(ii)

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and must calibrate, maintain, and operate according to the manufacturer's specifications a device that records flow to the treatment system and bypass of the treatment system (if applicable). The owner or operator must:

(1) Install, calibrate, and maintain a gas flow rate measuring device that records the flow to the treatment system at least every 15 minutes; and

(2) 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 must 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.

(h) The monitoring requirements of paragraphs (b), (c) (d) and (g) of this section apply at all times the affected source is operating, except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. You are required to complete monitoring system repairs in response to monitoring system malfunctions and to return the monitoring system to operation as expeditiously as practicable.

§60.767 Reporting requirements.

(a) *Design capacity report.* Each owner or operator subject to the requirements of this subpart must submit an initial design capacity report to the ~~Administrator~~ Department.

(1) *Submission.* The initial design capacity report fulfills the requirements of the notification of the date construction is commenced as required by §60.7(a)(1) and must be submitted no later than:

(i) ~~November 28, 2016, for landfills that commenced construction, modification, or reconstruction after July 17, 2014 but before August 29, 2016;~~ Ninety days after the date of commenced construction, modification, or reconstruction for MSW landfills that commenced construction, modification, or reconstruction on or after July 17, 2014 or

(ii) ~~Ninety days after the date of commenced construction, modification, or reconstruction for landfills that commence construction, modification, or reconstruction after August 29, 2016~~ The date specified in a State construction or operating permit, if applicable, or January 8, 2018, whichever is earlier, for all other subject MSW landfills.

(2) *Initial design capacity report.* The initial design capacity report must 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 must be calculated using good engineering practices. The calculations must be provided, along with the relevant parameters as part of the report. The landfill may calculate design capacity in either megagrams or cubic meters for comparison with the exemption values. 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. Any density conversions must be documented and submitted with the design capacity report. The ~~state, tribal, local agency or Administrator~~ Department may request other reasonable information as may be necessary to verify the maximum design capacity of the landfill.

(3) *Amended design capacity report.* An amended design capacity report must be submitted to the ~~Administrator~~ Department 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 meet or exceed 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 §60.768(f).

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(b) *NMOC emission rate report.* Each owner or operator subject to the requirements of this subpart must submit an NMOC emission rate report following the procedure specified in paragraph (i)(2) of this section to the ~~Administrator~~ Department initially and annually thereafter, except as provided for in paragraph (b)(1)(ii) of this section. The ~~Administrator~~ Department may request such additional information as may be necessary to verify the reported NMOC emission rate.

(1) The NMOC emission rate report must contain an annual or 5-year estimate of the NMOC emission rate calculated using the formula and procedures provided in §60.764(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 must be submitted no later than indicated in paragraphs (b)(1)(i)(A) and (B) of this section. Subsequent NMOC emission rate reports must be submitted annually thereafter, except as provided for in paragraph (b)(1)(ii) of this section.

(A) ~~November 28, 2016, for landfills that commenced construction, modification, or reconstruction after July 17, 2014, but before August 29, 2016,~~ Ninety days after the date of commenced construction, modification, or reconstruction for MSW landfills that commenced construction, modification, or reconstruction on or after July 17, 2014 or

(B) ~~Ninety days after the date of commenced construction, modification, or reconstruction for landfills that commence construction, modification, or reconstruction after August 29, 2016~~ January 8, 2018 for all other subject MSW landfills.

(ii) If the estimated NMOC emission rate as reported in the annual report to the ~~Administrator~~ Department is less than 34 megagrams per year in each of the next 5 consecutive years, the owner or operator may elect to submit, following the procedure specified in paragraph (i)(2) of this section, an estimate of the NMOC emission rate for the next 5-year period in lieu of the annual report. This estimate must 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 must be provided to the ~~Administrator~~ Department. This estimate must 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 must be submitted to the ~~Administrator~~ Department. The revised estimate must 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 must 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 to submit an NMOC emission rate report, after installing a collection and control system that complies with §60.762(b)(2), during such time as the collection and control system is in operation and in compliance with §§60.763 and 60.765.

(c) *Collection and control system design plan.* Each owner or operator subject to the provisions of §60.762(b)(2) must submit a collection and control system design plan to the ~~Administrator~~ Department for approval according to the schedule in paragraph (c)(4) of this section. The collection and control system design plan must be prepared and approved by a professional engineer and must meet the following requirements:

(1) The collection and control system as described in the design plan must meet the design requirements in §60.762(b)(2).

(2) The collection and control system design plan must include any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions of §§60.763 through 60.768 proposed by the owner or operator.

(3) The collection and control system design plan must either conform with specifications for active collection systems in §60.769 or include a demonstration to the ~~Administrator~~ Department's satisfaction of the sufficiency of the alternative provisions to §60.769.

(4) 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~~ Department for approval 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:

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(i) If the owner or operator elects to recalculate the NMOC emission rate after Tier 2 NMOC sampling and analysis as provided in §60.764(a)(3) and the resulting rate is less than 34 megagrams per year, annual periodic reporting must be resumed, using the Tier 2 determined site-specific NMOC concentration, until the calculated emission rate is equal to or greater than 34 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, must be submitted, following the procedures in paragraph (i)(2) of this section, within 180 days of the first calculated exceedance of 34 megagrams per year.

(ii) 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 §60.764(a)(4), and the resulting NMOC emission rate is less than 34 Mg/yr, annual periodic reporting must be resumed. The resulting site-specific methane generation rate constant k must 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 §60.764(a)(4) and the resulting site-specific methane generation rate constant k must be submitted, following the procedure specified in paragraph (i)(2) of this section, to the ~~Administrator~~ Department within 1 year of the first calculated emission rate equaling or exceeding 34 megagrams per year.

(iii) If the owner or operator elects to demonstrate that site-specific surface methane emissions are below 500 parts per million methane, based on the provisions of §60.764(a)(6), then the owner or operator must submit annually a Tier 4 surface emissions report as specified in this paragraph following the procedure specified in paragraph (i)(2) of this section until a surface emissions readings of 500 parts per million methane or greater is found. If the Tier 4 surface emissions report shows no surface emissions readings of 500 parts per million methane or greater for four consecutive quarters at a closed landfill, then the landfill owner or operator may reduce Tier 4 monitoring from a quarterly to an annual frequency. The ~~Administrator~~ Department may request such additional information as may be necessary to verify the reported instantaneous surface emission readings. The Tier 4 surface emissions report must clearly identify the location, date and time (to nearest second), average wind speeds including wind gusts, and reading (in parts per million) of any value 500 parts per million methane or greater, other than non-repeatable, momentary readings. For location, you must determine the latitude and longitude coordinates using an instrument with an accuracy of at least 4 meters. The coordinates must be in decimal degrees with at least five decimal places. The Tier 4 surface emission report must also include the results of the most recent Tier 1 and Tier 2 results in order to verify that the landfill does not exceed 50 Mg/yr of NMOC.

(A) The initial Tier 4 surface emissions report must be submitted annually, starting within 30 days of completing the fourth quarter of Tier 4 surface emissions monitoring that demonstrates that site-specific surface methane emissions are below 500 parts per million methane, and following the procedure specified in paragraph (i)(2) of this section.

(B) The Tier 4 surface emissions report must be submitted within 1 year of the first measured surface exceedance of 500 parts per million methane, following the procedure specified in paragraph (i)(2) of this section.

(5) The landfill owner or operator must notify the ~~Administrator~~ Department that the design plan is completed and submit a copy of the plan's signature page. The ~~Administrator~~ Department has 90 days to decide whether the design plan should be submitted for review. If the ~~Administrator~~ Department chooses to review the plan, the approval process continues as described in paragraph (c)(6) of this section. However, if the ~~Administrator~~ Department indicates that submission is not required or does not respond within 90 days, the landfill owner or operator can continue to implement the plan with the recognition that the owner or operator is proceeding at their own risk. In the event that the design plan is required to be modified to obtain approval, the owner or operator must take any steps necessary to conform any prior actions to the approved design plan and any failure to do so could result in an enforcement action.

(6) Upon receipt of an initial or revised design plan, the ~~Administrator~~ Department must review the information submitted under paragraphs (c)(1) through (3) 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. If the ~~Administrator~~ Department does not approve or disapprove the design plan, or does not request that

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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.

(7) If the owner or operator chooses to demonstrate compliance with the emission control requirements of this subpart using a treatment system as defined in this subpart, then the owner or operator must prepare a site-specific treatment system monitoring plan as specified in §60.768(b)(5).

(d) *Revised design plan.* The owner or operator who has already been required to submit a design plan under paragraph (c) of this section must submit a revised design plan to the ~~Administrator~~ Department for approval as follows:

(1) At least 90 days before expanding operations to an area not covered by the previously approved design plan.

(2) Prior to installing or expanding the gas collection system in a way that is not consistent with the design plan that was submitted to the ~~Administrator~~ Department according to paragraph (c) of this section.

(e) *Closure report.* Each owner or operator of a controlled landfill must submit a closure report to the ~~Administrator~~ Department within 30 days of waste acceptance cessation. The ~~Administrator~~ Department 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~~ Department, no additional wastes may be placed into the landfill without filing a notification of modification as described under §60.7(a)(4).

(f) *Equipment removal report.* Each owner or operator of a controlled landfill must submit an equipment removal report to the ~~Administrator~~ Department 30 days prior to removal or cessation of operation of the control equipment.

(1) The equipment removal report must contain all of the following items:

(i) A copy of the closure report submitted in accordance with paragraph (e) of this section;

(ii) A copy of the initial performance test report demonstrating that the 15-year minimum control period has expired, unless the report of the results of the performance test has been submitted to the EPA via the EPA's CDX, or information that demonstrates that the GCCS will be unable to operate for 15 years due to declining gas flows. In the equipment removal report, the process unit(s) tested, the pollutant(s) tested, and the date that such performance test was conducted may be submitted in lieu of the performance test report if the report has been previously submitted to the EPA's CDX; and

(iii) Dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 34 megagrams or greater of NMOC per year, unless the NMOC emission rate reports have been submitted to the EPA via the EPA's CDX. If the NMOC emission rate reports have been previously submitted to the EPA's CDX, a statement that the NMOC emission rate reports have been submitted electronically and the dates that the reports were submitted to the EPA's CDX may be submitted in the equipment removal report in lieu of the NMOC emission rate reports.

(2) The ~~Administrator~~ Department may request such additional information as may be necessary to verify that all of the conditions for removal in §60.762(b)(2)(v) have been met.

(g) *Annual report.* The owner or operator of a landfill seeking to comply with §60.762(b)(2) using an active collection system designed in accordance with §60.762(b)(2)(ii) must submit to the ~~Administrator~~ Department, following the procedure specified in paragraph (i)(2) of this section, annual reports of the recorded information in paragraphs (g)(1) through (7) of this section. The initial annual report must be submitted within 180 days of installation and startup of the collection and control system, and must include the initial performance test report required under §60.8, as applicable, unless the report of the results of the performance test has been submitted to the EPA via the EPA's CDX. In the initial annual report, the process unit(s) tested, the pollutant(s) tested, and the date that such performance test was conducted may be submitted in lieu of the performance test report if the report has been previously submitted to the EPA's CDX. For enclosed combustion devices and flares, reportable exceedances are defined under §60.768(c).

(1) Value and length of time for exceedance of applicable parameters monitored under §60.766(a), (b), (c), (d), and (g).

(2) Description and duration of all periods when the gas stream was diverted from the control device

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or treatment system through a bypass line or the indication of bypass flow as specified under §60.766.

(3) Description and duration of all periods when the control device or treatment system was not operating and length of time the control device or treatment system was not operating.

(4) All periods when the collection system was not operating.

(5) The location of each exceedance of the 500 parts per million methane concentration as provided in §60.763(d) and the concentration recorded at each location for which an exceedance was recorded in the previous month. For location, you must determine the latitude and longitude coordinates using an instrument with an accuracy of at least 4 meters. The coordinates must be in decimal degrees with at least five decimal places.

(6) The date of installation and the location of each well or collection system expansion added pursuant to §60.765(a)(3), (a)(5), (b), and (c)(4).

(7) For any corrective action analysis for which corrective actions are required in §60.765(a)(3) or (5) and that take more than 60 days to correct the exceedance, the root cause analysis conducted, including a description of the recommended corrective action(s), the date for corrective action(s) already completed following the positive pressure reading, and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates.

(h) *Initial performance test report.* Each owner or operator seeking to comply with §60.762(b)(2)(iii) must 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.

(i) *Electronic reporting.* The owner or operator must submit reports electronically according to paragraphs (i)(1) and (2) of this section.

(1) Within 60 days after the date of completing each performance test (as defined in §60.8), the owner or operator must submit the results of each performance test according to the following procedures:

(i) For data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT Web site (*https://www3.epa.gov/ttn/chief/ert/ert_info.html*) at the time of the test, you must submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (*https://cdx.epa.gov/*). Performance test data must be submitted in a file format generated through the use of the EPA's ERT or an alternative file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT Web site, once the XML schema is available. If you claim that some of the performance test information being submitted is confidential business information (CBI), you must submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT Web site, including information claimed to be CBI, on a compact disc, flash drive or other commonly used electronic storage media to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's

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CDX as described earlier in this paragraph.

(ii) For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT Web site at the time of the test, you must submit the results of the performance test to the ~~Administrator~~ Department ~~at the appropriate address listed in §60.4~~.

(2) Each owner or operator required to submit reports following the procedure specified in this paragraph must submit reports to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX.) The owner or operator must use the appropriate electronic report in CEDRI for this subpart or an alternate electronic file format consistent with the XML schema listed on the CEDRI Web site (*https://www3.epa.gov/ttn/chief/cedri/index.html*). If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the owner or operator must submit the report to the ~~Administrator~~ Department at the appropriate address listed in §60.4. Once the form has been available in CEDRI for 90 calendar days, the owner or operator must begin submitting all subsequent reports via CEDRI. The reports must be submitted by the deadlines specified in this subpart, regardless of the method in which the reports are submitted.

(j) *Corrective action and the corresponding timeline.* The owner or operator must submit according to paragraphs (j)(1) and (j)(2) of this section.

(1) For corrective action that is required according to §60.765(a)(3)(iii) or (a)(5)(iii) and is expected to take longer than 120 days after the initial exceedance to complete, you must submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the ~~Administrator~~ Department as soon as practicable but no later than 75 days after the first measurement of positive pressure or temperature monitoring value of 55 degrees Celsius (131 degrees Fahrenheit). The ~~Administrator~~ Department must approve the plan for corrective action and the corresponding timeline.

(2) For corrective action that is required according to §60.765(a)(3)(iii) or (a)(5)(iii) and is not completed within 60 days after the initial exceedance, you must submit a notification to the ~~Administrator~~ Department as soon as practicable but no later than 75 days after the first measurement of positive pressure or temperature exceedance.

(k) *Liquids addition.* The owner or operator of an affected landfill with a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters that has employed leachate recirculation or added liquids based on a Research, Development, and Demonstration permit (issued through Resource Conservation and Recovery Act, subtitle D, part 258) within the last 10 years must submit to the ~~Administrator~~ Department, annually, following the procedure specified in paragraph (i)(2) of this section, the following information:

(1) Volume of leachate recirculated (gallons per year) and the reported basis of those estimates (records or engineering estimates).

(2) Total volume of all other liquids added (gallons per year) and the reported basis of those estimates (records or engineering estimates).

(3) Surface area (acres) over which the leachate is recirculated (or otherwise applied).

(4) Surface area (acres) over which any other liquids are applied.

(5) The total waste disposed (megagrams) in the areas with recirculated leachate and/or added liquids based on on-site records to the extent data are available, or engineering estimates and the reported basis of those estimates.

(6) The annual waste acceptance rates (megagrams per year) in the areas with recirculated leachate and/or added liquids, based on on-site records to the extent data are available, or engineering estimates.

(7) The initial report must contain items in paragraph (k)(1) through (6) of this section per year for the initial annual reporting period as well as for each of the previous 10 years, to the extent historical data are available in on-site records, and the report must be submitted no later than: thirteen (13) months after the date of commenced construction, modification, or reconstruction for landfills that commenced construction, modification, or reconstruction on or after July 17, 2014 containing data for the first 12 months after August 29, 2016.

(l) ~~September 27, 2017, for landfills that commenced construction, modification, or reconstruction after July 17, 2014 but before August 29, 2016 containing data for the first 12 months after August 29,~~

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~~2016; or~~ [Reserved].

(ii) ~~Thirteen (13) months after the date of commenced construction, modification, or reconstruction for landfills that commence construction, modification, or reconstruction after August 29, 2016 containing data for the first 12 months after August 29, 2016~~ [Reserved].

(8) Subsequent annual reports must contain items in paragraph (k)(1) through (6) of this section for the 365-day period following the 365-day period included in the previous annual report, and the report must be submitted no later than 365 days after the date the previous report was submitted.

(9) Landfills may cease annual reporting of items in paragraphs (k)(1) through (7) of this section once they have submitted the closure report in paragraph (e) of this section.

(l) *Tier 4 notification.* (1) The owner or operator of an affected landfill with a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters must provide a notification of the date(s) upon which it intends to demonstrate site-specific surface methane emissions are below 500 parts per million methane, based on the Tier 4 provisions of §60.764(a)(6). The landfill must also include a description of the wind barrier to be used during the SEM in the notification. Notification must be postmarked not less than 30 days prior to such date.

(2) If there is a delay to the scheduled Tier 4 SEM date due to weather conditions, including not meeting the wind requirements in §60.764(a)(6)(iii)(A), the owner or operator of a landfill shall notify the ~~Administrator~~ Department by email or telephone no later than 48 hours before any delay or cancellation in the original test date, and arrange an updated date with the ~~Administrator~~ Department by mutual agreement.

§60.768 Recordkeeping requirements.

(a) Except as provided in §60.767(c)(2), each owner or operator of an MSW landfill subject to the provisions of §60.762(b)(2)(ii) and (iii) must keep for at least 5 years up-to-date, readily accessible, on-site records of the design capacity report that triggered §60.762(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 §60.767(c)(2), each owner or operator of a controlled landfill must keep up-to-date, readily accessible records for the life of the control system equipment of the data listed in paragraphs (b)(1) through (5) of this section as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring must be maintained for a minimum of 5 years. Records of the control device vendor specifications must be maintained until removal.

(1) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §60.762(b)(2)(ii):

(i) The maximum expected gas generation flow rate as calculated in §60.765(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~~ Department.

(ii) The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in §60.769(a)(1).

(2) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §60.762(b)(2)(iii) through use of an enclosed combustion device other than a boiler or process heater with a design heat input capacity equal to or greater than 44 megawatts:

(i) The average 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 §60.762(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 §60.762(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 §60.762(b)(2)(iii)(A) through use of a non-enclosed flare, the flare type (*i.e.*, steam-assisted, air-assisted, or nonassisted), all visible emission readings, heat content determination, flow rate

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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.

(5) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §60.762(b)(2)(iii) through use of a landfill gas treatment system:

(i) *Bypass records.* Records of the flow of landfill gas to, and bypass of, the treatment system.

(ii) *Site-specific treatment monitoring plan,* to include:

(A) Monitoring records of parameters that are identified in the treatment system monitoring plan and that ensure the treatment system is operating properly for each intended end use of the treated landfill gas. At a minimum, records should include records of filtration, de-watering, and compression parameters that ensure the treatment system is operating properly for each intended end use of the treated landfill gas.

(B) Monitoring methods, frequencies, and operating ranges for each monitored operating parameter based on manufacturer's recommendations or engineering analysis for each intended end use of the treated landfill gas.

(C) Documentation of the monitoring methods and ranges, along with justification for their use.

(D) Identify who is responsible (by job title) for data collection.

(E) Processes and methods used to collect the necessary data.

(F) Description of the procedures and methods that are used for quality assurance, maintenance, and repair of all continuous monitoring systems.

(c) Except as provided in §60.767(c)(2), each owner or operator of a controlled landfill subject to the provisions of this subpart must keep for 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in §60.766 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 must be recorded and reported under §60.767(g):

(i) For enclosed combustors except for boilers and process heaters with design heat input capacity of 44 megawatts (150 million British thermal units per hour) or greater, all 3-hour periods of operation during which the average temperature was more than 28 degrees Celsius (82 degrees Fahrenheit) below the average combustion temperature during the most recent performance test at which compliance with §60.762(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 must keep up-to-date, readily accessible continuous records of the indication of flow to the control system and 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 §60.766.

(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 §60.762(b)(2)(iii) must 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 a non-enclosed flare must keep up-to-date, readily accessible continuous records of the flame or flare pilot flame monitoring specified under §60.766(c), and up-to-date, readily accessible records of all periods of operation in which the flame or flare pilot flame is absent.

(5) Each owner or operator of a landfill seeking to comply with §60.762(b)(2) using an active collection system designed in accordance with §60.762(b)(2)(ii) must keep records of periods when the collection system or control device is not operating.

(d) Except as provided in §60.767(c)(2), each owner or operator subject to the provisions of this subpart must keep for the life of the collection system an up-to-date, readily accessible plot map showing

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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 must keep up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified under §60.765(b).

(2) Each owner or operator subject to the provisions of this subpart must 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 §60.769(a)(3)(i) as well as any nonproductive areas excluded from collection as provided in §60.769(a)(3)(ii).

(e) Except as provided in §60.767(c)(2), each owner or operator subject to the provisions of this subpart must keep for at least 5 years up-to-date, readily accessible records of the following:

(1) All collection and control system exceedances of the operational standards in §60.763, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance.

(2) Each owner or operator subject to the provisions of this subpart must also keep records of each wellhead temperature monitoring value of 55 degrees Celsius (131 degrees Fahrenheit) or above, each wellhead nitrogen level at or above 20 percent, and each wellhead oxygen level at or above 5 percent.

(3) For any root cause analysis for which corrective actions are required in §60.765(a)(3)(i) or (a)(5)(i), keep a record of the root cause analysis conducted, including a description of the recommended corrective action(s) taken, and the date(s) the corrective action(s) were completed.

(4) For any root cause analysis for which corrective actions are required in §60.765(a)(3)(ii) or (a)(5)(ii), keep a record of the root cause analysis conducted, the corrective action analysis, the date for corrective action(s) already completed following the positive pressure reading or high temperature reading, and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates.

(5) For any root cause analysis for which corrective actions are required in §60.765(a)(3)(iii) or (a)(5)(iii), keep a record of the root cause analysis conducted, the corrective action analysis, the date for corrective action(s) already completed following the positive pressure reading or high temperature reading, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates, and a copy of any comments or final approval on the corrective action analysis or schedule from the regulatory agency.

(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", must 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.

(g) Landfill owners or operators seeking to demonstrate that site-specific surface methane emissions are below 500 parts per million by conducting surface emission monitoring under the Tier 4 procedures specified in §60.764(a)(6) must keep for at least 5 years up-to-date, readily accessible records of all surface emissions monitoring and information related to monitoring instrument calibrations conducted according to sections 8 and 10 of Method 21 of appendix A of this part, including all of the following items:

(1) Calibration records:

(i) Date of calibration and initials of operator performing the calibration.

(ii) Calibration gas cylinder identification, certification date, and certified concentration.

(iii) Instrument scale(s) used.

(iv) A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value.

(v) If an owner or operator makes their own calibration gas, a description of the procedure used.

(2) Digital photographs of the instrument setup, including the wind barrier. The photographs must be

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time and date-stamped and taken at the first sampling location prior to sampling and at the last sampling location after sampling at the end of each sampling day, for the duration of the Tier 4 monitoring demonstration.

(3) Timestamp of each surface scan reading:

(i) Timestamp should be detailed to the nearest second, based on when the sample collection begins.

(ii) A log for the length of time each sample was taken using a stopwatch (*e.g.*, the time the probe was held over the area).

(4) Location of each surface scan reading. The owner or operator must determine the coordinates using an instrument with an accuracy of at least 4 meters. Coordinates must be in decimal degrees with at least five decimal places.

(5) Monitored methane concentration (parts per million) of each reading.

(6) Background methane concentration (parts per million) after each instrument calibration test.

(7) Adjusted methane concentration using most recent calibration (parts per million).

(8) For readings taken at each surface penetration, the unique identification location label matching the label specified in paragraph (d) of this section.

(9) Records of the operating hours of the gas collection system for each destruction device.

(h) Except as provided in §60.767(c)(2), each owner or operator subject to the provisions of this subpart must keep for at least 5 years up-to-date, readily accessible records of all collection and control system monitoring data for parameters measured in §60.766(a)(1), (2), and (3).

(i) Any records required to be maintained by this subpart that are submitted electronically via the EPA's CDX may be maintained in electronic format.

(j) For each owner or operator reporting leachate or other liquids addition under §60.767(k), keep records of any engineering calculations or company records used to estimate the quantities of leachate or liquids added, the surface areas for which the leachate or liquids were applied, and the estimates of annual waste acceptance or total waste in place in the areas where leachate or liquids were applied.

§60.769 Specifications for active collection systems.

(a) Each owner or operator seeking to comply with §60.762(b)(2)(i) must 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~~ Department as provided in §60.767(c)(2) and (3):

(1) The collection devices within the interior must be certified to achieve comprehensive control of surface gas emissions by a professional engineer. The following issues must be addressed in the design: Depths of refuse, refuse gas generation rates and flow characteristics, cover properties, gas system expandability, leachate and condensate management, accessibility, compatibility with filling operations, integration with closure end use, air intrusion control, corrosion resistance, fill settlement, resistance to the refuse decomposition heat, and ability to isolate individual components or sections for repair or troubleshooting without shutting down entire collection system.

(2) The sufficient density of gas collection devices determined in paragraph (a)(1) of this section must 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 must control all gas producing areas, except as provided by paragraphs (a)(3)(i) and (ii) of this section.

(i) Any segregated area of asbestos or nondegradable material may be excluded from collection if documented as provided under §60.768(d). The documentation must provide the nature, date of deposition, location and amount of asbestos or nondegradable material deposited in the area, and must be provided to the ~~Administrator~~ Department 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 must be documented and provided to the ~~Administrator~~ Department upon request. A separate NMOC emissions estimate must be made for each

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section proposed for exclusion, and the sum of all such sections must be compared to the NMOC emissions estimate for the entire landfill.

(A) The NMOC emissions from each section proposed for exclusion must be computed using Equation 7:

$$Q_i = 2\ k\ L_o\ M_i\ (e^{-kt_i})\ (C_{NMOC})\ (3.6 \times 10^{-9}) \qquad \text{(Eq. 7)}$$

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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.

(B) If the owner/operator is proposing to exclude, or cease gas collection and control from, nonproductive physically separated (*e.g.*, separately lined) closed areas that already have gas collection systems, NMOC emissions from each physically separated closed area must be computed using either Equation 3 in §60.764(b) or Equation 7 in paragraph (a)(3)(ii)(A) of this section.

(iii) The values for k and C_{NMOC} determined in field testing must 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, L_o and C_{NMOC} provided in §60.764(a)(1) or the alternative values from §60.764(a)(5) must 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 §60.762(b)(2)(ii)(A) construct the gas collection devices using the following equipment or procedures:

(1) The landfill gas extraction components must 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 must extend as necessary to comply with emission and migration standards. Collection devices such as wells and horizontal collectors must be perforated to allow gas entry without head loss sufficient to impair performance across the intended extent of control. Perforations must be situated with regard to the need to prevent excessive air infiltration.

(2) Vertical wells must be placed so as not to endanger underlying liners and must address the occurrence of water within the landfill. Holes and trenches constructed for piped wells and horizontal collectors must 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 must 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 must include a positive closing throttle valve, any necessary seals and couplings, access couplings and at least one sampling port. The collection devices must be constructed of PVC, HDPE, fiberglass, stainless steel, or other nonporous material of suitable thickness.

(c) Each owner or operator seeking to comply with §60.762(b)(2)(iii) must convey the landfill gas to a control system in compliance with §60.762(b)(2)(iii) through the collection header pipe(s). The gas mover equipment must 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:

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(1) For existing collection systems, the flow data must be used to project the maximum flow rate. If no flow data exists, the procedures in paragraph (c)(2) of this section must be used.

(2) For new collection systems, the maximum flow rate must be in accordance with §60.765(a)(1).

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APPENDIX C

Certification of Public Noticing and Public Hearing

1 Legal Notice in News Journal on March 12
2 Legal Notice in Delaware State News on March 12
3 Public Notice on DNREC website
4 Public Notice on Delaware's Statewide Meeting Calendar
5 Public Notice in biweekly E-News Update from DNREC's Office of Environmental Protection
6 Notification to EPA Region 3 and the state and local agencies in the region
7 Certification that the hearing was held in accordance with the requirements of 40 CFR 60.23(d)
8 List of hearing attendees and their affiliation
9 Brief summary of presentations or written submissions to the Public Hearing Record

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DOVER, DE 19904

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03/12/17 A.D 2017

Sherry Ann Salvia
Sworn and subscribed before me, this 13 day of March, 2017

Linda Barber

Ad Number: 0001985376

SHERRY ANN SALVIA
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DNREC – Division of Air Quality

LEGAL NOTICE

PUBLIC HEARING

The Department of Natural Resources and Environmental Control (DNREC) will conduct a public hearing on a proposed State Plan and amendment to existing Regulation No. 1120 New Source Performance Standards to add a new standard (Section 30) that is applicable to municipal solid waste landfills (MSWLs).

On August 29, 2016, the EPA promulgated two regulations applicable to MSWLs. The EPA promulgated 40 CFR Part 60 Subpart XXX, which regulates the emissions from new (i.e., newly constructed, reconstructed, or modified) MSWLs and 40 CFR Part 60 Subpart Cf, which requires States to regulate emissions from existing MSWLs. The purpose of these two federal regulations is to reduce volatile organic compounds (VOCs) and methane emissions from MSWLs.

DNREC is proposing to incorporate the federal new MSWL requirements in Subpart XXX by reference as Section 30 of Regulation No. 1120. To satisfy the existing MSWL requirements of Subpart Cf, the applicability of Section 30 will be expanded to include both existing and new MSWLs. Once finalized, Section 30 and the State Plan will be submitted to the EPA for approval. There are three MSWLs in Delaware; all are operated by the Delaware Solid Waste Authority and will be subject to the State Plan and amended regulation.

The public hearing on this proposed State Plan and amendment of Regulation No. 1120 will be held on Monday, April 24, 2017, beginning at 6:00PM in the Department's office located at 100 W. Water Street, Suite 6A, Dover, DE.

The proposed amendment and the State Plan are available for public review (1) at the Department's office at 715 Grantham Lane in New Castle, DE; (2) at the Department's office at 100 W. Water Street, Suite 6A in Dover, DE; (3) in the statewide Public Meeting Calendar notice for this hearing at https://publicmeetings.delaware.gov/, and (4) in the April 1, 2017 edition of the Delaware Register of Regulations on and after April 1 at http://regulations.delaware.gov/services/register.shtml. For additional information or any appointment to inspect the proposed amendment and State Plan, please contact either Jim Snead at the New Castle office at (302) 323-4542 or jsnead@state.de.us or Ron Amirikian at the Dover office at (302) 739-9402 or ronald.amirikian@state.de.us.

Statements and testimony may be presented either orally or in writing at the April 24 public hearing. If you are unable to attend or wish to submit your comments in advance of the public hearing, please send your comments to the address below. Interested parties may also submit written comments to the Department, to the same 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

THIS IS THE ONLY TIME THIS NOTICE WILL APPEAR.

3/12- NJ

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INDEPENDENT NEWSMEDIA INC. USA

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State of Delaware:

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Before me, a Notary Public, for the County and State aforesaid, Edward Dulin, known to me to be such, who being sworn according to law deposes and says that he is President of Independent Newsmedia Inc. USA, the publisher of the **Delaware State News**, a daily newspaper published at Dover, County of Kent, and State of Delaware, and that the notice, a copy of which is hereto attached, as published in the **Delaware State News** in its issue of March 12 2017

President
Independent Newsmedia Inc. USA

Sworn to and subscribed before me this 12th

Day of March A.D. 2017

JANET E. LEVY NOTARY PUBLIC MY COMMISSION EXPIRES ON 09-26-17 STATE OF DELAWARE

Janet Levy
Notary Public

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DNREC – Division of Air Quality
LEGAL NOTICE

PUBLIC HEARING

The Department of Natural Resources and Environmental Control (DNREC) will conduct a public hearing on a proposed State Plan and amendment to existing **Regulation No. 1120** New Source Performance Standards to add a new standard (Section 30) that is applicable to municipal solid waste landfills (MSWLs).

On August 29, 2016, the EPA promulgated two regulations applicable to MSWLs. The EPA promulgated 40 CFR Part 60 Subpart XXX, which regulates the emissions from new (i.e., newly constructed, reconstructed, or modified) MSWLs and 40 CFR Part 60 Subpart Cf, which requires States to regulate emissions from existing MSWLs. The purpose of these two federal regulations is to reduce volatile organic compounds (VOCs) and methane emissions from MSWLs.

DNREC is proposing to incorporate the federal new MSWL requirements in Subpart XXX by reference as Section 30 of **Regulation No. 1120.** To satisfy the existing MSWL requirements of Subpart Cf, the applicability of Section 30 will be expanded to include both existing and new MSWLs. Once finalized, Section 30 and the State Plan will be submitted to the EPA for approval. There are three MSWLs in Delaware, all are operated by the Delaware Solid Waste Authority and will be subject to the State Plan and amended regulation.

The public hearing on this proposed State Plan and amendment of Regulation No. 1120 will be held on Monday, April 24, 2017, beginning at 6:00PM in the Department's office located at 100 W. Water Street, Suite 6A, Dover, DE.

The proposed amendment and the State Plan are available for public review (1) at the Department's office at 715 Grantham Lane in New Castle, DE; (2) at the Department's office at 100 W. Water Street, Suite 6A in Dover, DE; (3) on the statewide Public Meeting Calendar notice for the hearing at https://publicmeetings.delaware.gov; and (4) in the April 1, 2017 edition of the Delaware Register of Regulations on and after April 1 at http://regulations.delaware.gov/services/register.shtml. For additional information or any appointment to inspect the proposed amendment and State Plan, please contact either Jim Snead at the New Castle office at (302) 323-4542 or jsnead@state.de.us or Ron Amirikian at the Dover office at (302) 739-9402 or ronald.amirikian@state.de.us.

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DNREC – Division of Air Quality
Subject: April 24 Public Hearing
715 Grantham Lane
New Castle, DE 19720

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177046 DSN 3/12/2017

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DNREC Public Notices Website

http://www.dnrec.delaware.gov/Lists/Public%20Notices/DispForm.aspx?ID=3670&Source=http%3A%2F%2Fwww%2Ednrec%2Fdelaware%2Fgov%2FLists%2FPublic%2520Notices%2FAllItems%2Easpx&ContentTypeId=0x010034FD6D348B0CF0439248SE93FC15AB3A

Public Notices : PUBLIC HEARING

Start Date	3/12/2017
End Date	4/24/2017
Division	Air Quality
Notice Text	DNREC/DIVISION OF AIR QUALITY

LEGAL NOTICE

PUBLIC HEARING

The Department of Natural Resources and Environmental Control (DNREC) will conduct a public hearing on a proposed State Plan and amendment to existing Regulation No. 1120 New Source Performance Standards to add a new standard (Section 30) that is applicable to municipal solid waste landfills (MSWLs).

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DNREC is proposing to incorporate the federal new MSWL requirements in Subpart XXX by reference as Section 30 of Regulation No. 1120. To satisfy the existing MSWL requirements of Subpart Cf, the applicability of Section 30 will be expanded to include both existing and new MSWLs. Once finalized, Section 30 and the State Plan will be submitted to the EPA for approval. There are three MSWLs in Delaware; all are operated by the Delaware Solid Waste Authority and will be subject to the State Plan and amended regulation.

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DNREC – Division of Air Quality
Subject: April 24 Public Hearing
715 Grantham Lane
New Castle, DE 19720

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Created at 3/8/2017 2:36 PM by mpolo
Last modified at 3/8/2017 2:36 PM by mpolo

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https://publicmeetings.delaware.gov/Meeting/52522

Public Hearing – Section 30 of 7 DE Admin Code 1120/State Plan (Municipal Solide Waste Landfills)

05:00 PM – 06:00 PM Monday April 24, 2017
DNREC Division of Air Quality / Air Quality / Natural Resources and Environmental Control

MEETING DESCRIPTION

On 8/29/16, EPA finalized 2 rules applicable to MSWLs. EPA finalized 40 CFR Part 60 Sub XXX, which regulated the emissions of new MSWLs. EPA finalized 40 CFR Part 60 Sub Cf, which mandated states to develop plans to regulate emissions of existing MSWLs. The purpose of this action is to incorporate the requirements in Sub XXX by reference as Sect. 30 of Reg. 1120 and to satisfy the existing requirements of Sub Cf by expanding the applicability of Sect. 30 to include existing & new MSWLs.

The proposed amendment and the State Plan are available for public review (1) at the Departments office at 715 Grantham Lane in New Castle, DE; (2) at the Departments office at 100 W. Water Street, Suite 6A in Dover, DE; (3) in the statewide Public Meeting Calendar notice for this hearing at https://publicmeetings.delaware.gov/, and (4) in the April 1, 2017 edition of the Delaware Register of Regulations on and after April 1 at http://regulations.delaware.gov/services/register.shtml. For additional information or any appointment to inspect the proposed amendment and State Plan, please contact either Jim Snead at the New Castle office at (302) 323-4542 or jsnead@state.de.us or Ron Amirikian at the Dover office at (302) 739-9402 or ronald.amirikian@state.de.us.

CHANGE HISTORY

Change Date	Change Reason
03/20/2017	Topic change - Purpose
03/17/2017	Location change - Location Comments
03/17/2017	Topic change - Purpose
03/17/2017	Document change - Associated Document saved
03/17/2017	Document change - Associated Document saved
03/17/2017	Document change - Associated Document saved
03/17/2017	Document change - Associated Document saved
03/17/2017	Document change - Agenda saved
03/17/2017	Document change - Associated Document saved
03/17/2017	Document change - Associated Document saved
03/17/2017	Location change - Location Comments
03/17/2017	Topic change - Meeting Information
03/17/2017	New

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100 W. Water Street
Dover, DE 19904

Statements and testimony may be presented either orally or in writing at a public hearing. If you are unable to attend or wish to submit your comments in advance send them to Jim Snead, 715 Grantham Lane, New Castle, DE 9720. Interested parties may also submit written comments to the Department, to Jim Snead until the end of the comment period, which will extend through May 9, unless a longer period is designated by the hearing officer at the hearing

VIRTUAL MEETING INFORMATION

None

DOCUMENTS

Agenda
Document

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Snead, James (DNREC)

From: Nedelka, Katherine (DNREC)
Sent: Tuesday, March 21, 2017 9:51 AM
Subject: DNREC E-News March 21 2017

NEWS FROM DNREC'S OFFICE OF ENVIRONMENTAL PROTECTION 03/21/17

The biweekly E-News Update features current information on the Divisions of Air Quality (DAQ), Waste and Hazardous Substances (WHS), and Water regarding public meetings, workshops, hearings, and regulatory documents available for public comment, as well as general news updates. For those of you who are receiving the E-News Update for the first time, the subscription is FREE!
Please sign up at: http://www.dnrec.delaware.gov/Pages/DNRECLists.aspx under "Division of Waste & Hazardous Substances Lists." There is no form to fill out; it's done in three clicks!
Suggestions? Additions? Please call Kathy Nedelka at 302-739-9400, or send an email to katherine.nedelka@state.de.us
Published by the Divisions of Air Quality, Waste and Hazardous Substances, and Water.
Visit us at: www.awm.delaware.gov

SECRETARY'S ORDERS

Secretary's Order No. 2017-A-0009
RE: Notice of Administrative Penalty Assessment and Secretary's Order issued to Delaware City Refining Company for violation of 7 Del. Code Chapter 60, pursuant to 7 Del.C. §6005(b)(3).

Secretary's Order No. 2017-WH-0010
RE: Cease and desist Secretary's Order to Heritage-Crystal Clean, LLC, for violation of 7 Del. C. Chapters 60 and 63 and 7 DE Admin. Code 1302, Delaware's Regulations Governing Hazardous Waste ("DRGHW"). Accordingly, the Department is issuing this Order to Cease and Desist, pursuant to 7 Del. C. § 6018.

Secretary's Order No. 2017-WH-0013
RE: Approving Final Regulations to Amend 7 DE Admin. Code 1352: Regulations Governing Aboveground Storage Tank Systems Hearing officer's report included

UPCOMING AIR, WASTE, & WATER-RELATED HEARINGS, MEETINGS, & EVENTS

DELAWARES ENVIRONMENTAL MITIGATION PLAN- This meeting will be held on **March 23** beginning at 6pm at 100 W Water St, Dover 19904. On October 25, 2016, a Partial Consent Decree was finalized between the United States Justice Department, the Volkswagen (VW) Corporation, and its subsidiaries regarding the installation and use of emissions testing defeat devices in over 500,000 vehicles sold and operated in the United States beginning in 2009. Use of these defeat devices has increased air emissions of nitrogen oxide (NOX), resulting in adverse impacts to air quality and violating the federal Clean Air Act. In response to the Settlement, the Division of Air Quality has developed a proposed mitigation plan to accept and distribute these funds to eligible projects. The proposed plan is focused on the eligible types of mitigation actions that can produce the greatest air quality benefit in terms of NOX emission reductions, reduce public exposure, and promote clean vehicle technologies. The plan is expected to have a significant positive impact on Delaware; DAQ is requesting input from the public to help develop a final mitigation plan prior to taking any formal action. Public comments are being accepted until **April 3**. Written comments may be sent to VW_Mitigation_Plan@state.de.us or mailed to: Division of Air Quality, State Street Commons, 100 W. Water Street, Suite 6A, Dover, 19904. For more information visit:
https://publicmeetings.delaware.gov/Meeting/51374

WATER SUPPLY COORDINATING COUNCIL MEETING - The Council will hold a meeting on **March 30** from 10am to 12pm at the Kent County Administration Complex, Conference Room 220, 555 Bay Road, Dover, 19901. For additional information, please contact Kimberly Burris at (302) 739-9945; or visit:
https://publicmeetings.delaware.gov/Meeting/51191

BOARD OF CERTIFICATION FOR WASTEWATER OPERATORS MONTHLY MEETING – This is a regular monthly meeting of the Board of Certification for Wastewater Operators. Meeting will take place on **April 4** from 9am to10am at the Richardson & Robbins Building, Conference Room B172, 89 Kings Hwy, Dover 19901. For additional information contact Faye Wheeler at (302) 739-9946; or visit:
https://publicmeetings.delaware.gov/Meeting/39380

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BOILER SAFETY COUNCIL MEETING – Meeting will discuss proposed regulation changes and will take place on **April 5** beginning at 10am at the Cannon Building, 1st floor, 861 Silver Lake Blvd, Dover, 19904. For additional information contact Alex Rittberg at 302-395-2500; or visit: https://publicmeetings.delaware.gov/Meeting/51238

ON-SITE SYSTEMS ADVISORY BOARD MEETING – This is a regular monthly meeting that will be held on **April 5** from 9:15am to 11:30am at the Richardson and Robbins Building, Conference Room B228: 89 Kings Highway, Dover, 19901. For additional information, contact Dawn Dryden, 302-739-9948; or visit: https://publicmeetings.delaware.gov/Meeting/50845

PUBLIC HEARING - Section 30 of 7 DE Admin Code 1120/State Plan (Municipal Solide Waste Landfills) – This meeting will be held on April 24 beginning at 6pm at DNREC, 100 W Water St, Dover, 19904. On 8/29/16, EPA finalized 2 rules applicable to MSWLs. EPA finalized 40 CFR Part 60 Sub XXX, which regulated the emissions of new MSWLs. EPA finalized 40 CFR Part 60 Sub Cf, which mandated states to develop plans to regulate emissions of existing MSWLs. The purpose of this action is to incorporate the requirements in Sub XXX by reference as Sect. 30 of Reg. 1120 and to satisfy the existing requirements of Sub Cf by expanding the applicability of Sect. 30 to include existing & new MSWLs. The proposed amendment and the State Plan are available for public review (1) at the Departments office at 715 Grantham Lane in New Castle, (2) at the Departments office at 100 W. Water Street, Suite 6A in Dover, (3) in the statewide Public Meeting Calendar notice for this hearing at https://publicmeetings.delaware.gov/, and (4) in the April 1 edition of the Delaware Register of Regulations on and after April 1 at http://regulations.delaware.gov/services/register.shtml. For additional information or any appointment to inspect the proposed amendment and State Plan, please contact either Jim Snead at the New Castle office at (302) 323-4542 or jsnead@state.de.us or Ron Amirikian at the Dover office at (302) 739-9402 or ronald.amirikian@state.de.us; or visit: https://publicmeetings.delaware.gov/Meeting/62522

BOARD OF CERTIFICATION FOR WASTEWATER OPERATORS MONTHLY MEETING – This is a regular monthly meeting of the Board of Certification for Wastewater Operators. Meeting will take place on **May 2** from 9am to10am at the Richardson & Robbins Building, Conference Room B172, 89 Kings Hwy, Dover 19901. For additional information contact Faye Wheeler at (302) 739-9946; or visit: https://publicmeetings.delaware.gov/Meeting/39381

OPT-IN! THE DELAWARE DIVISION OF AIR QUALITY (DAQ) is committed to working with citizens to continuously optimize Delaware's air quality and protect public health, welfare, and the environment. To determine that the DAQ is meeting the air quality needs of the citizens across the state, we encourage you to participate in our opt-in list. In the future you will receive surveys that will allow us to analyze our performance. You can access the opt-in list by clicking: https://survey.co1.qualtrics.com/jfe/form/SV_1RGZGUYf8fSuckB

AIR QUALITY PERMITTING PROGRAM – Notice has been given that the facilities listed below have submitted applications for air quality management permits. The applications, the "draft/proposed" permits, all materials that the applicant has submitted (other than those granted confidential treatment under DNREC rules), and a copy of summary of other materials, if any, considered in preparing the "draft/proposed" permit, may be inspected at the offices of the Division of Air Quality, 100 W. Water Street, Suite 6A, Dover, 19904. **All comments and public hearing requests** should be mailed to the following address: DIVISION OF AIR QUALITY, 100 W. Water Street, Suite 6A, Dover 19904. To submit comments, for additional information, or for an appointment to inspect the application, please contact Penny Gentry at (302) 739-9402.

NOTICE HAS BEEN GIVEN THAT New Haven Packaging, LLC, requests a construction permit to construct a fluidized bed dryer with a high efficiency cyclone to dry salt at their 612 Christiana Avenue, Wilmington facility. The salt drying process will be permitted to emit 23.20 TPY of particulate matter (PM), 5.50 TPY of particulate matter (PM10), 1.09 TPY of particulate matter (PM2.5), 4.15 TPY of carbon monoxide (CO), 4.94 TPY of nitrogen oxides (NOx), 0.03 TPY of sulfur oxides (SOx), and 0.27 TPY of volatile organic compounds (VOCs) by Permit: APC-2017/0082. A public hearing on any of the above applications will NOT be held unless the Secretary receives a request for a hearing regarding that application by **March 21**. A request for a hearing shall be in writing. The request must also show a familiarity with the application and a reasoned statement of the permit's probable impact. For more information visit: http://www.dnrec.delaware.gov/Lists/Public%20Notices/DispForm.aspx?ID=3666&Source=http%3A%2F%2Fwww%2Ednrec%2Edelaware%2Egov%2FLists%2FPublic%2520Notices%2FAllItems%2Easpx&ContentTypeId=0x010034FD6D348B0CF04392485E93FC15AB3A

NOTICE IS HEREBY GIVEN THAT Stonetech, LLC, requests a permit to operate one (1) 200 tons per hour McCloskey Impact Crusher at County Road 323, Georgetown, Sussex County, 3700 Bay Road, Dover, Kent County, 1230 Railcar Avenue, Wilmington, New Castle County, 36393 Sussex Highway, Delmar, Sussex County, US 113 and Road 207, Lincoln, Sussex County, 30548 Thorogood Road, Dagsboro, Sussex County, 26020 River

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Snead, James (DNREC)

From:	Snead, James (DNREC)
Sent:	Wednesday, March 22, 2017 9:47 AM
To:	'Fernandez.Cristina@epa.gov'; gordon.mike@epa.gov; 'cecily.beall@dc.gov'; 'george.aburn@maryland.gov'; 'mgdowd@deq.virginia.gov'; 'william.f.durham@wv.gov'; 'kramamurthi@pa.gov'; 'francis.steitz@dep.nj.gov'; Kassabun.Sellassie@phila.gov ;' jgraham@nchd.net'
Cc:	Mirzakhalili, Ali (DNREC); Amirikian, Ronald A. (DNREC); Gray, Valerie A. (DNREC); Marconi, Angela D. (DNREC)
Subject:	Delaware DNREC Public Hearing Notice on proposed III(d) State Plan and Regulation for Municipal Solid Waste Landfills (MSWLS)
Attachments:	Proposed MSWL State Plan - 3-12AB.pdf; 1120-30 Proposed 3-12.pdf

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%2F%2Fwww%2Ednrec%2Edelaware%2Egov%2FLists%2FPublic%2520Notices%2FAllItems%2Easpx&ContentTypeId=0x010034FD6D348B0CF04392485E93FC15AD3A

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

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Hearing Certification
Place Holder

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Public Hearing for Municipal Solid Waste Landfills

Proposed MSWL State Plan and Section 30 of Regulation 1120

April 24, 2017

Name	Representing	Position	Address	Phone	Fax	E-Mail
Lisa A. Vest	DNREC - OTS	Public Hearing Officer	Delaware DNREC89 Kings Highway Dover , DE 19901	(302) 739-9042		Lisa.Vest@state.de.us
Ron Amirikian	DNREC - Air Quality	Planning Manager	100 W. Water Street Suite 6A Dover , DE 19904	(302) 739-9402	(302) 739-3106	ronald.amirikian@state.de.us
Jim Snead	DNREC - Air Quality	Environmental Engineer	715 Grantham Lane New Castle, DE 19720	(302) 323-4542	(302) 323-4598	jsnead@state.de.us
Valerie Gray	DNREC - Air Quality	Planning Supervisor	715 Grantham Lane New Castle, DE 19720	(302) 323-4542	(302) 323-4598	valerie.gray@state.de.us
Angela Marconi	DNREC - Air Quality	Engineering Manager	715 Grantham Lane New Castle, DE 19720	(302) 323-4542	(302) 323-4598	angela.marconi@state.de.us
Rich Walford	DNREC - Air Quality	Environmental Engineer	100 W. Water Street Suite 6A Dover , DE 19904	(302) 739-9402	(302) 739-3106	joanna.french@state.de.us
Michael Lenkiewicz	DSWA	Landfill Gas Engineer	1107 Willow Grove Rd Felton, DE 19943	(302) 284-8857		mrl@dswa.com
V. Nicole Burkhardt	DSWA	Landfill Gas Engineer	1706 E. 12th Street Wilmington, DE 19809	(302) 764-5385	(302) 764-5386	vngb@dswa.com
Brad Richardson	DNREC - SHWMS	Environmental Scientist	Delaware DNREC 89 Kings Highway Dover, DE 19901	(302) 764-5385		brad.richardson@state.de.us

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Record of Public Hearing

As required by 40 CFR 60.23(e), the complete record of the public hearing, along with a list of the public hearing attendees and the text of the written presentations is located at the Dover Office of the Department's Division of Air Quality. The Department contact to access this information is the Director, Division of Air Quality.

A brief summary of the Department's presentation and the one written submission received follows.

Brief Summary of Presentations or Written Submissions to the Public Hearing Record

Prior to the public hearing

V. Nicole Burkhardt of the Delaware Solid Waste Authority (DSWA) submitted an email to the Department on 4/24/17 at 1215 hours. The email provided newly developed facility information (design capacity and estimated 2016 uncontrolled NMOC emissions) for each of DSWA's 3 landfills. In addition, DSWA inquired as to . . .

- Whether there was any information available on how to use the EPA's electronic reporting systems;
- Whether hard copy reports would still be submitted to the Department; and
- Which datum should be used to identify "locations", when conducting surface emissions monitoring.

The Public Hearing Officer entered the DSWA email into the formal hearing record as DSWA – Exhibit 1.

At the hearing

Jim Snead presented the Department's information during the 4/24/17 public hearing. The Department's presentation included the following:

- The statutory and regulatory backgrounds for the two actions being considered at the 4/24/17 public hearing.
  - The adoption of a federal NSPS (Subpart XXX) requirements applicable to new MSW landfills as Section 30 in Air Regulation 1120 and
  - The development of Delaware's State Plan applicable to existing MSW landfills in accordance with the federal emission guideline (Subpart Cf).
- A description of the mechanism that the Department used in developing the State Plan. The Department plans to adopt new regulatory requirements into Air Regulation 1120, as Section 30, by incorporating federal Subpart XXX by reference. When adopting Subpart XXX, the MSW landfills being subject to Section 30 will be expanded to include both new and existing MSW landfills. Thus, Delaware's 3 existing MSW landfills are subject to Section 30; thereby enabling Delaware to meet the applicability requirements of Subpart Cf.
- The introduction of the Department's 19 exhibits, which illustrated that the Department . . .
  - Has met or exceeded all federal, Delaware, and Departmental statutory and regulatory requirements and
  - Has widely provided public noticing of the 4/24 public hearing and of the publics' opportunity to comment through the Department's use of printed media, electronic mail, State and Departmental electronic bulletin boards, as well as hard copy information available at Division of Air Quality offices.

The Public Hearing Officer entered the Department's exhibits into the formal hearing record as DNREC – Exhibits 1 – 19.

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APPENDIX "C"

EXHIBIT
Ex. #4 (LAW)

MEMORANDUM

To: Lisa Vest, Hearing Officer

Through: Ali Mirzakhalili
Ronald Amirikian
Valerie Gray

From: Jim Snead

Subject: Comment Response Document for Municipal Solid Waste Landfill State Plan

Date: May 23, 2017

Responses to comments and questions on proposed State Plan and proposed adoption of Section 30 of 7 DE Admin Code 1120 applicable to Municipal Solid Waste Landfills

Public Hearing: April 24, 2017

Overview

- The Delaware Solid Waste Authority (DSWA) was the only commenter during the public comment period, which began on April 1 and ended on May 10, 2017.
- On April 24, 2017, V. Nicole Burkhardt of DSWA sent an email to the Department that provided newly updated information for inclusion into Section IV of the State Plan. The email also sought answers to three questions.
- During the April 24 public hearing, the Hearing Office added this DSWA's email to the hearing record as "DSWA Exhibit 1", see Attachment 1.
- The details of the new information and the three questions are attached, along with the Department's response, see Attachment 2.

Results

- All three questions were answered. **NO CHANGES** were made to either the proposed State Plan or the proposed adoption of Section 30 as a result of these questions.
- DSWA provided the following newly generated information for the table in Section IV of the State Plan.
  - The final 2017 "design capacity" for each of its three MSW landfills.
  - The final 2016 "estimated non-methane organic compound (NMOC) emissions".
- The purpose of the table in Section IV of the State Plan is to provide a current description of the individual landfills that are subject to State Plan. To more accurately describe the three DSWA

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facilities, the Department plans to **CHANGE** the now outdated numbers in the proposed State Plan with DSWA's newly finalized values.

* **These changes to the "design capacities" and the "estimated NMOC emissions" are non-substantive changes in nature.** They are simply changes to the descriptions of the facility and are not essential to either the State Plan or Section 30.

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Attachment 1

Snead, James (DNREC)

From: V. Nicole Burkhardt <vngb@dswa.com>
Sent: Monday, April 24, 2017 12:15 PM
To: Marconi, Angela D. (DNREC); 'Mike Lenkiewicz'
Cc: Snead, James (DNREC)
Subject: Re: NSPS info

Angela and Jim,

DSWA has a comment to update the DSWA-specific Design Capacities and 2016 Estimated NMOC Emissions (Uncontrolled) to reflect the updated reports submitted to DNREC WHS and soon to be submitted Emissions Inventory Reports to DNREC AQM. The new numbers are shown below. Please let us know if you have any questions.

Additionally, DSWA has 2 questions regarding the State Plan and newly revised NSPS Regulations.

1) EPA will require electronic submittals for various reports. Is there any information available yet to demonstrate how those electronic submittals will be implemented? Additionally, will DNREC require a separate hard copy submittal?

2) For Surface Emission Monitoring, DSWA understands that we must record the GPS coordinates in units of decimal degrees to at least 5 decimal places as measured by an instrument with an accuracy of at least 4m. Is there a required datum to be used when recording this data (e.g. - Geographical, State Plane, UTM, or the U.S. National Grid)?

Site	Design Capacity (million MG)*	NMOC (MG/yr)**
NSWMC	21.203	53.45
CSWMC	8.313	38.38
SSWMC	7.628	29.78

*Based on permitted design capacities including current waste-in-place and available capacity for future.
**Based on soon to be submitted Emissions Inventory Reports.

Sincerely,
V. Nicole Gallagher Burkhardt, P.E.
Landfill Gas Engineer
vngb@dswa.com

Delaware Solid Waste Authority
1706 E. 12th Street
Wilmington, DE 19809

TEL: (302) 764-5385
FAX: (302) 764-5386

www.dswa.com

From: Marconi, Angela D. (DNREC)
Sent: Thursday, April 13, 2017 5:02 PM
To: 'V. Nicole Burkhardt' ; 'Mike Lenkiewicz'

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Cc: Snead, James (DNREC)
Subject: NSPS info

Nicole and Mike,

I wanted to let you know that if you have any comments leading up to the Delaware hearing regarding the State Plan for the revised NSPS please send them to Jim Snead. He is cc'd on this message. I will be out of the office April 14-21st, returning the 24th (which is also the date of the hearing).

Thank you and Happy Easter,
Angela Marconi

Attachment 2

Responses to comments and questions associated with DSWA Exhibit - 1

Comments were received from V. Nicole Burkhardt of DSWA via an April 24, 2017 email, which was entered into the Hearing Record by the Hearing Officer as DSWA Exhibit – 1.

Comments

Comment 1. "DSWA has a comment to update the DSWA-specific Design Capacities and 2016 Estimated NMOC Emissions (Uncontrolled) to reflect the updated reports submitted to DNREC WHS and soon to be submitted Emissions Inventory Reports to DNREC AQM. The new numbers are shown below."

Site	Design Capacity (million MG)*	NMOC (MG/yr)**
NSWMC	21.203	53.45
CSWMC	8.313	38.38
SSWMC	7.628	29.78
* Based on permitted design capacities including current waste-in-place and available capacity for future.		
** Based on soon to be submitted Emissions Inventory Reports.		

Note: DSWA submitted the above mentioned Emissions Inventory Reports to DNREC DAQ on April 27.

Response: The Department appreciates that DSWA has provided the updated information on their three facilities and will incorporate this new information into our revised proposed State Plan for Secretary Garvin to consider in his decision. These changes to the "design capacities" and the "estimated NMOC emissions" are non-substantive changes in nature. They are simply changes to the descriptions of the facility and are not essential to either the State Plan or Section 30.

Questions

Question 1. "EPA will require electronic submittals for various reports. Is there any information available yet to demonstrate how those electronic submittals will be implemented?

Response: Since electronic reporting has been around for at least 6 years, there is extensive information available to assist affected facilities on the EPA website.

There are 3 main EPA component systems involved in electronic reporting. These component systems and links to their "Home Page" are provided in the following table. The table also identifies attachments that the Department has prepared to highlight the types of information the EPA has provided for facilities that must submit electronic reports.

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Information Available on Electronic Reporting		
Component Systems	**Links to Home Page**	**Overview of Available Information**
EPA's Central Data Exchange (CDX)	https://cdx.epa.gov/	See Attachment 2A
EPA's Electronic Reporting Tool (ERT)	https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert	See Attachment 2B
Compliance and Emissions Data Reporting Interface (CEDRI)	https://www.epa.gov/electronic-reporting-air-emissions/compliance-and-emissions-data-reporting-interface-cedri	See Attachment 2C

Through the use of "User's Guides", "Frequently Asked Questions (FAQ)", and other documentation and video presentations, the EPA assists the facilities in . . .

- Understanding the different roles at the reporting facilities;
- Identifying what is needed before getting started;
- Registering the different facility users and establishing organizational profiles;
- Submitting reports;
- Finding help contacts via telephone, email, or chat, whichever are available.

In addition, the EPA recommended another electronic tool to consider at https://www.epa.gov/electronic-reporting-air-emissions/webfire. The WebFIRE database is EPA's online emissions factor repository, retrieval, and development tool. While WebFIRE is not used in the electronic reports submittal process, the database does contain the electronically reported information. Thus, it provides a convenient means to search for and access submitted reports. For more information, see the "Reports" on https://cfpub.epa.gov/webfire/.

Question 2. "EPA will require electronic submittals for various reports. . . . . Additionally, will DNREC require a separate hard copy submittal?

Response: DSWA should continue to separately submit all documents (i.e., reports, applications, notices, certifications, statements, etc.) to the Department as prescribed in Condition 2.a.3 of their facilities' current 7 **DE Admin. Code** 1130 (Title V) Operating Permit.

Question 3. "For Surface Emission Monitoring, DSWA understands that we must record the GPS coordinates in units of decimal degrees to at least 5 decimal places as measured by an instrument with an accuracy of at least 4m. Is there a required datum to be used when recording this data (e.g. - Geographical, State Plane, UTM, or the U.S. National Grid)?"

Response: The EPA did not specify a required coordinate system to be used in identifying the location of leaks during surface emissions monitoring. DAQ, working with DSWA, will clarify this requirement when revising DSWA's 7 **DE Admin. Code** 1130 (Title V) Operating Permits.

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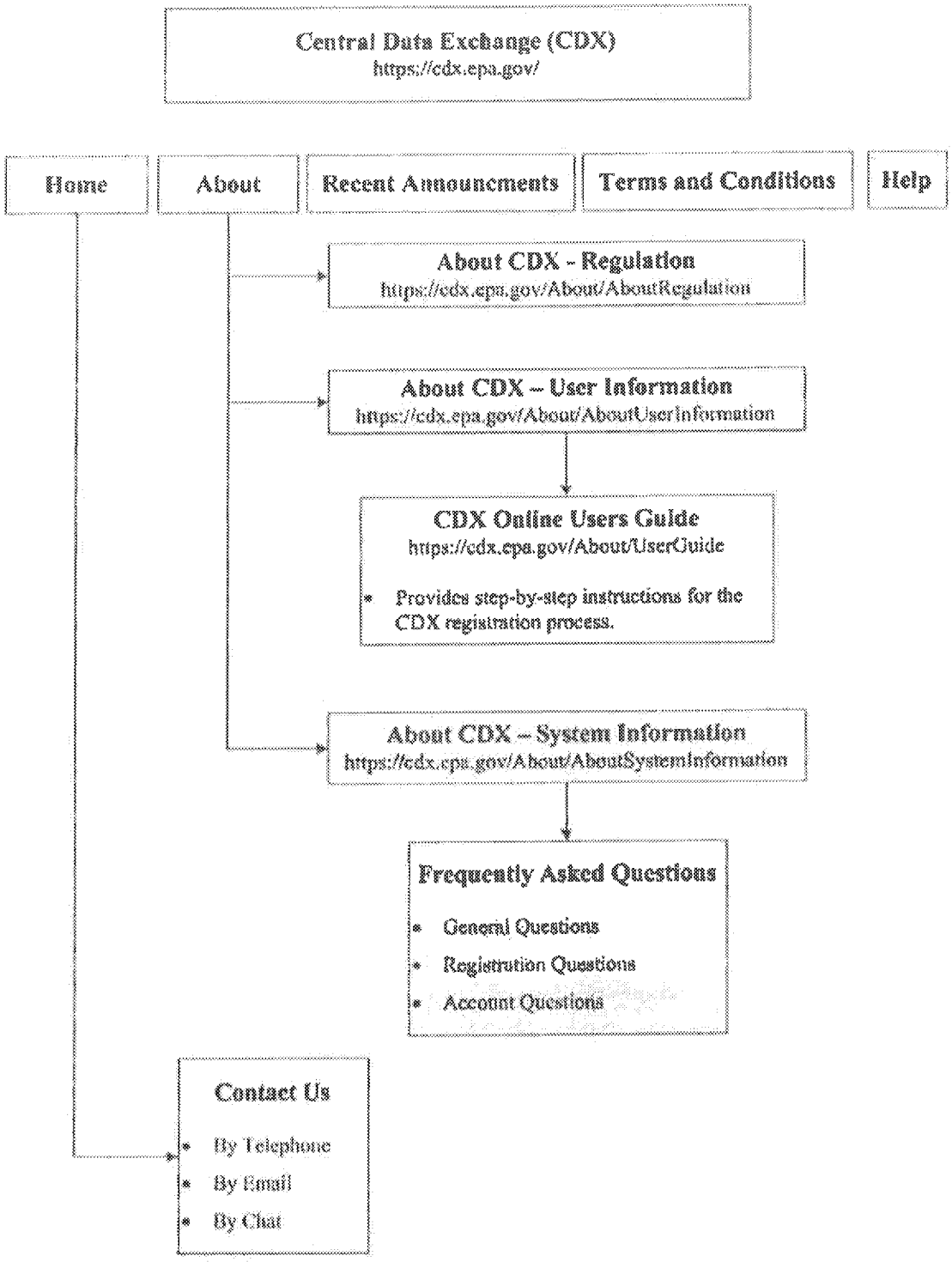
Attachment 2A



Attachment 2B

Electronic Reporting Tool (ERT)

https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert

Introduction

Installation, Program Files and User's Guide

- Provides example of Project Data Set with single and paired train manual test method
- Provides example of Project Data Set with instrumental test methods and performance specifications

ERT Field and Header Data Import Spreadsheets and XML Schema

- Provides example of properly formatted spreadsheet to import data into ERT
- Provides examples of using XML Schema, an alternative to importing spreadsheets

ERT User's Guide, Updated December 22, 2016

- Provides Users Guide (PDF) https://www3.epa.gov/ttn/chief/ert/ertv5/ERT%20Users%20Guide%20-12-22-16%20Release.pdf
- Provides link to the 'ERT Training and Webinars' webpage https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert-training-and-webinars

Submitting ERT Files to CDX/CEDRI

- Provides CDX/CEDRI Users Guide (PDF) https://www3.epa.gov/ttn/chief/ert/cedriguide.pdf
- Provides link to list of 'Promulgated Regulation with Electronic Data Reporting Requirements (PDF)' https://www3.epa.gov/ttn/chief/ert/ert_rules.pdf

WebFIRE Import Spreadsheets

- Provides a link to the spreadsheet template that companies, associations, or agencies to submit their input to WebFIRE.

Contact Us

- By Letter
- By Email

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Attachment 2C

Compliance and Emissions Data Reporting Interface (CEDRI)

https://www.epa.gov/electronic-reporting-air-emissions/compliance-and-emissions-data-reporting-interface-cedri

Overview

CEDRI Stats

- Provides annual number of report submittals by Part, Subpart, and type of report example of Project Data Set with single and paired train manual test method
- Provides example of Project Data Set with instrumental test methods and performance specifications

CEDRI Roles

- Provides description of the different roles for reporting facility, and the state and federal agencies https://www3.epa.gov/ttn/chief/cedri/CEDRI%20Roles.pdf

What will I Need To Get Started

- Provides a list of what the users needs before initially signing on https://www3.epa.gov/ttn/chief/cedri/CEDRIGettingStarted.pdf

User's Guide and Frequent Questions

- Provides a comprehensive Users Guide (PDF) https://www3.epa.gov/ttn/chief/cedri/UserGuide.pdf
- Provides instructions on how to create XML reporting documents https://www3.epa.gov/ttn/chief/cedri/XML_Reporting_Instruction.pdf
- Provides a link to the CEDRI FAQ document
- Provide a YouTube video on how to create an account and for accessing CEDRI https://www.youtube.com/watch?v=gIRrMxrcTzE

List of Rules and Required Reports Available in CEDRI

Contact Us

- By Letter
- By Email

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STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES
AND ENVIRONMENTAL CONTROL
89 KINGS HIGHWAY
DOVER, DELAWARE 19901

OFFICE OF THE
SECRETARY

PHONE: (302) 739-9000
FAX: (302) 739-6242

Secretary's Order No.: 2017-A-0015

RE: Approving Final Regulations to Amend 7 DE Admin. Code 1120, *New Source Performance Standards,* to wit: the adoption of a new Section 30.0 (as required by 40 CFR Part 60, Subpart XXX and 40 CFR Part 60, Subpart Cf); and proposed revisions to Delaware's Section 111(d) State Plan for the Regulation of Air Emissions from Municipal Solid Waste Landfills

Date of Issuance: May 30, 2017

Effective Date of the Amendment: July 11, 2017

Under the authority vested in the Secretary of the Department of Natural Resources and Environmental Control ("Department" or "DNREC") pursuant to 7 *Del.C.* §§6006 and 6010, the following findings of fact based on the record, reasons and conclusions are entered as an Order of the Secretary in the above-referenced regulatory proceeding.

Background, Procedural History and Findings of Fact

This Order relates to proposed regulatory Amendments to 7 DE Admin. Code 1120, *New Source Performance Standards* ("Amendments"), to wit: the adoption of a new Section 30.0 (as required by 40 CFR Part 60, Subpart XXX and 40 CFR Part 60, Subpart Cf), and proposed revisions to Delaware's State Plan for the Regulation of Air Emissions from Municipal Solid Waste Landfills, hereinafter referred to as Delaware's "Section 111(d) State Plan".

On August 29, 2016, the United States Environmental Protection Agency ("U.S. EPA", "EPA") adopted two regulations applicable to municipal solid waste landfills ("MSWLs"): 40 CFR Part 60, Subpart XXX (which regulated emissions from new MSWLs); and 40 CFR Part 60, Subpart Cf (which mandated state agencies to develop a plan to regulate emissions from existing MSWLs). The purpose of these two federal regulations was to reduce the public health risks associated with both Volatile Organic Compounds ("VOCs") and methane emissions from MSWLs.

The Department proposes to adopt the aforementioned Amendments in order for Delaware to incorporate the federal requirements found in Subpart XXX of 40 CFR Part 60 by reference into a new Section 30.0 of 7 DE Admin. Code 1120. To satisfy the federal requirements found in Subpart Cf of 40 CFR Part 60, the applicability of Section 30.0 will be expanded, such that it will apply to all MSWLs, i.e., both existing *and* new MSWLs. Once this proposed regulatory promulgation is finalized by the Department, both the newly adopted Section 30.0 of 7 DE Admin. Code 1120 *and* the revisions to Delaware's Section 111(d) Plan will be submitted to EPA for approval.

The Department's Division of Air Quality commenced the regulatory development process with Start Action Notice ("SAN") #2017-03 dated February 20, 2017. The Department published its initial proposed regulation Amendments in the April 1, 2017 *Delaware Register of Regulations.* The Department then held a public hearing on April 24, 2017. Consistent with 29 *Del.C.* §10118(a), the public hearing record remained open for public comment through May 10, 2017.

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Members of the public attended the April 24, 2017 public hearing; however, no comment was received by the Department at that time, nor at any subsequent time prior to the hearing record closing with regard to public comment on May 10, 2017. Written comment was, however, received by the Department from the Delaware Solid Waste Authority ("DSWA") *prior* to the time of the April 24, 2017 public hearing, which provided updated data for each of its three MSWLs. This updated information was then incorporated by Department staff into the table in Section IV of Delaware's Section 111(d) State Plan, and was fully vetted to the public at the time of the aforementioned public hearing. No further public re-noticing or re-publication of this proposed regulatory promulgation is necessary at this time, given that the additions to Delaware's revised Section 111(d) State Plan consist only of updated descriptions of the DSWA facilities, are non-substantive in nature; and are not essential to either the proposed Amendments or Delaware's revised Section 111(d) State Plan. It should also be noted that all proper notification and noticing requirements concerning this matter were met by the Department. Proper notice of the hearing was provided as required by law.

Hearing Officer Lisa A. Vest prepared a Hearing Officer's Report dated May 23, 2017 ("Report"). The Report documents the proper completion of the required regulatory amendment process, establishes the record, and recommends the adoption of the proposed Amendments and Delaware's revised Section 111(d) State Plan, attached to the Report as Appendices "A" and "B", respectively.

Reasons and Conclusions

Based on the record developed by the Department's experts and established by the Hearing Officer's Report, I find that the proposed regulatory Amendments to 7 DE

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Admin. Code 1120, *New Source Performance Standards*, to wit: the adoption of a new Section 30.0 (as required by 40 CFR Part 60, Subpart XXX and 40 CFR Part 60, Subpart Cf), and proposed revisions to Delaware's Section 111(d) State Plan for the Regulation of Air Emissions from Municipal Solid Waste Landfills, are well-supported. Therefore, the recommendations of the Hearing Officer are hereby adopted, and I direct that the proposed regulatory Amendments be promulgated as final.

I find that the Department's experts in the Division of Air Quality fully developed the record to support adoption of these regulatory Amendments and of Delaware's Section 111(d) State Plan. The adoption of the above will enable Delaware to incorporate the aforementioned federal requirements found in both 40 CFR Part 60 Subpart XXX and 40 CFR Part 60 Subpart Cf , thereby reducing the public health risks associated with VOC and methane emissions from MSWLs.

In conclusion, the following reasons and conclusions are entered:

1. The Department has the statutory basis and legal authority to act with regard to the proposed amendments to 7 DE Admin. Code 1120, *New Source Performance Standards*, to wit: the adoption of a new Section 30.0 (as required by 40 CFR Part 60, Subpart XXX and 40 CFR Part 60, Subpart Cf); and proposed revisions to Delaware's Section 111(d) State Plan for the Regulation of Air Emissions from Municipal Solid Waste Landfills, pursuant to 7 *Del.C.*, Ch. 60;

2. The Department has jurisdiction under its statutory authority, pursuant to 7 *Del.C.*, Ch. 60, to issue an Order adopting these proposed regulatory amendments and proposed revisions to Delaware's Section 111(d) State Plan as final;

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3. The Department provided adequate public notice of the proposed regulatory amendments and proposed revisions to Delaware's Section 111(d) State Plan, and all proceedings associated with the same, in a manner required by the law and regulations, provided the public with an adequate opportunity to comment on the proposed regulatory amendments, including at the time of the public hearing held on April 24, 2017, and held the record open through close of business on May 10, 2017, consistent with 29 *Del.C.* §10118(a), in order to consider public comment on the same before making any final decision;

4. While the Department made revisions to the initial proposed Delaware's Section 111(d) State Plan as set forth above, such changes were made *prior* to the public hearing of April 24, 2017, and were all fully vetted to the public as referenced above. Moreover, since no additional comment was received by the Department subsequent to the aforementioned public hearing, no other changes were made to either the proposed Amendments or Delaware's Section 111(d) State Plan as a result of the same. Therefore, no additional re-publication or re-noticing is necessitated at this time;

5. Promulgation of the proposed regulatory amendments to 7 DE Admin. Code 1120, *New Source Performance Standards*, to wit: the adoption of a new Section 30.0 (as required by 40 CFR Part 60, Subpart XXX and 40 CFR Part 60, Subpart Cf); and proposed revisions to Delaware's Section 111(d) State Plan for the Regulation of Air Emissions from Municipal Solid Waste Landfills, will enable the Department to incorporate the federal requirements found in Subpart XXX of 40 CFR Part 60 by reference into a new Section 30.0 of 7 DE Admin. Code 1120. To satisfy the federal requirements found in Subpart Cf of 40 CFR Part 60, the applicability of Section 30.0 will be expanded,

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such that it will apply to all MSWLs, i.e., both existing *and* new MSWLs. Moreover, the adoption of the aforementioned federal requirements will enable Delaware to further reduce the public health risks associated with VOC and methane emissions from MSWLs. Once this proposed regulatory promulgation is finalized by the Department, both the newly adopted Section 30.0 of 7 DE Admin. Code 1120 *and* the revisions to Delaware's Section 111(d) State Plan will be submitted to EPA for approval;

6. The Department's Hearing Officer's Report, including its established record and the recommended proposed regulatory Amendments and revisions to Delaware's Section 111(d) State Plan, as set forth in Appendices "A" and "B" thereto, are hereby adopted to provide additional reasons and findings for this Order;

7. The Department has reviewed these proposed regulatory amendments and revisions to Delaware's Section 111(d) State Plan in the light of the Regulatory Flexibility Act, consistent with 29 *Del.C.* Ch. 104 (version applicable to all regulations initially published on or after January 1, 2016), and has selected Exemption "A" regarding same, as this proposed regulation is not subject to Chapter 104, Title 29 of the Delaware Code, because it will not apply to small businesses or individuals at all;

8. The Department's proposed regulatory Amendments and revisions to Delaware's Section 111(d) State Plan, as published in the April 1, 2017 *Delaware Register of Regulations*, and as fully vetted at the public hearing of April 24, 2017 as noted above, are adequately supported, are not arbitrary or capricious, and are consistent with the applicable laws and regulations. Consequently, they are approved as final regulatory Amendments and revisions to Delaware's Section 111(d) State Plan, which

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shall go into effect ten days after their publication in the next available issue of the *Delaware Register of Regulations*; and

9. The Department shall submit this Order approving as final the proposed Amendments to 7 DE Admin. Code 1120, *New Source Performance Standards*, to wit: the adoption of a new Section 30.0 (as required by 40 CFR Part 60, Subpart XXX and 40 CFR Part 60, Subpart Cf); and the proposed revisions to Delaware's Section 111(d) State Plan for the Regulation of Air Emissions from Municipal Solid Waste Landfills to the *Delaware Register of Regulations* for publication in its next available issue, and provide such other notice as the law and regulation require and the Department determines is appropriate.

Shawn M. Garvin
Secretary

Ahear\ Reg. 1120 Sect.30 Amndmts. and State Plan.2017.ORD

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west virginia department of environmental protection

Executive Office
601 57th Street, SE
Charleston, WV 25304

Austin Caperton, Cabinet Secretary
dep.wv.gov

September 13, 2018

Mr. Cosmo Servidio (3RA00)
Regional Administrator
U.S. Environmental Protection Agency
Region 3
1650 Arch Street
Philadelphia, PA 19103-2029

Re: West Virginia State Plan Revision for the Control of Air Pollution from Municipal Solid Waste Landfills

Dear Administrator Servidio:

On behalf of the State of West Virginia, I am herein submitting for approval a revision to the West Virginia State Plan for the Control of Air Pollution from Municipal Solid Waste (MSW) Landfills. This revision to the State Plan is being submitted to fulfill the State's obligations under the Clean Air Act, as amended (CAA). Section 111(d)(1) of the CAA requires each state submit to EPA a plan which establishes standards of performance for any existing source in response to the issuance of Emission Guidelines by EPA and provide for the implementation and enforcement of such standards.

In this revision to the State Plan, West Virginia demonstrates that the State Plan is as protective as the emission guidelines promulgated by EPA. Included with this submittal is an electronic copy on compact disk in searchable PDF format. We certify that the enclosed electronic copy includes an exact duplicate of information contained in the hardcopy submission.

The last revision to Series 23 of Title 45 of the West Virginia Code of State Rules (45 C.S.R. 23), *Control of Air Pollution from Municipal Solid Waste Landfills*, became effective June 1, 2018. The state rule was revised in response to the EPA final rules *Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills* under 40 C.F.R. 60, Subpart Cf [81 Fed. Reg. 59276, August 29, 2016] and *Standards of Performance for Municipal Solid Waste Landfills* under 40 C.F. R 60, Subpart XXX [81 Fed. Reg. 59332, August 29, 2016].

I certify that the public notice and public hearing regarding the CAA § 111(d) *West Virginia State Plan Revision for the Control of Air Pollution from Municipal Solid Waste Landfills* was

held in accordance with criteria specified in 40 CFR §60.23(d). I further certify that the list of attendees, public hearing transcript, summary of received public comments, and response to comment document are included as Appendix B of the revised State Plan.

Pursuant to the final rule published at 49 Fed. Reg. 48692 [14 DEC 1984] that granted delegation of the NSPS program to West Virginia, I am also providing notification that 45 C.S.R. 23 legally adopts 40 C.F.R. 60, Subparts XXX (Standards of Performance for Municipal Solid Waste Landfills), as of June 1, 2017 except as identified in § 45-23-8. The Division of Air Quality (DAQ) intends to enforce the adopted standards in conformance with the terms of EPA's delegation of authority letter dated March 19, 2001. We understand that in accordance with EPA's delegation agreement letters, new or revised NSPS's are "automatically" delegated at the time the State legally adopts such standards, and upon receipt of notice herein.

If you or your staff have any questions concerning this submittal, please contact William F. Durham, Director of the Division of Air Quality at (304) 926-0462.

Sincerely,

Austin Caperton
Cabinet Secretary

AC/lmj
Enclosures

cc: William F. Durham, DAQ
Cristina Fernandez, USEPA/
Mike Gordon, USEPA/3AP10

west virginia department of environmental protection

West Virginia State Plan Revision for the Control of Air Pollution from Municipal Solid Waste Landfills

September 13, 2018

West Virginia Division of Air Quality
601 57th Street, SE
Charleston, WV 25304

Promoting a healthy environment.

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Acronyms, Abbreviations, and Symbols

CAA	Clean Air Act
C.F.R.	Code of Federal Regulations
C.S.R.	Code of State Rules
DAQ	Division of Air Quality
DEP	Department of Environmental Protection
EGs	Emission Guidelines
EPA	Environmental Protection Agency
FR	Federal Register
GCCS	Gas Collection and Control System
LFG	Landfill Gas
M^3	Cubic Meters
Mg/Yr	Megagrams per Year
MSW	Municipal Solid Waste
NAAQS	National Ambient Air Quality Standards
NMOC	Non-Methane Organic Compounds
NSPS	New Source Performance Standard
ppb	Parts per Billion
ppm	Parts per Million
U.S.	United States
WV	West Virginia
>	Greater Than
≥	Greater Than or Equal To
$x\ 10^6$	Million

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West Virginia State Plan Revision for the Control of Air Pollution from Municipal Solid Waste Landfills

1.0. Executive Summary

On August 29, 2016, the Environmental Protection Agency (EPA) published *Standards of Performance for Municipal Solid Waste Landfills,* under section (111)(b) of the Clean Air Act, as amended (CAA) and *Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills* under section (111)(d) of the CAA. The EPA established a new subpart (40 C.F.R. 60, Subpart XXX) that updated the Standards of Performance for Municipal Solid Waste (MSW) Landfills following its review of this source category rather than updating the existing subpart (40 C.F.R. 60, Subpart WWW). The requirements under 40 C.F.R. 60, Subpart XXX apply to any MSW landfill for which construction, reconstruction, or modification commenced after July 17, 2014. The EPA likewise established a new subpart when it revised the Emission Guidelines (EGs), 40 C.F.R. 60, Subpart Cf. The EPA established EGs and compliance times for the control of designated pollutants from designated MSW landfills that commenced construction, modification, or reconstruction on or before July 17, 2014 under 40 C.F.R. 60, Subpart Cf.

States with one or more existing MSW landfills that commenced construction, modification, or reconstruction on or before July 17, 2014, are required to submit a State Plan to the EPA that implements the EGs under 40 C.F.R. Part 60, Subpart Cf and per the requirements of 40 C.F.R. Part 60, Subpart B.

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West Virginia is herein submitting a revision to its CAA §111(d) State Plan for MSW landfills, last approved by the EPA in 66 Fed. Reg. 28375, May 23, 2001. The revised plan addresses the EPA's August 29, 2016 final rule "Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills" (40 C.F.R. 60, Subpart Cf, effective October 28, 2016) [81 Fed. Reg. 59276, August 29, 2016].

West Virginia legislative rule, 45 C.S.R. 23 - *Control of Air Pollution from Municipal Solid Waste Landfills*, incorporates by reference the MSW landfill requirements for new sources and implements the EGs and compliance times for existing sources pursuant to CAA § 111(d) to control MSW landfill air emissions, including nonmethane organic compounds (NMOC) and methane from the following facilities: (a) MSW landfills previously subject to the EGs and compliance times under 40 C.F.R. 60, Subpart Cc; (b) MSW landfills previously subject to the new source performance standards (NSPS) under 40 C.F.R. 60, Subpart WWW; (c) MSW landfills that commenced construction, reconstruction, or modification on or before July 17, 2014 and subject to the EGs and compliance times promulgated by the EPA under 40 C.F.R. 60, Subpart Cf; and (d) MSW landfills that commenced construction, reconstruction or modification after July 17, 2014 and subject to the NSPS under 40 C.F.R. 60, Subpart XXX. West Virginia legislative rule 45 C.S.R. 23 became effective on June 1, 2018 and is included as Appendix A of this plan.

The revised WV State Plan submitted herein (the plan), is based on revisions to 45 C.S.R. 23 effective June 1, 2018 and adheres to the requirements for state plans provided under 40 C.F.R. 60, Subpart B, *Adoption and Submittal of State Plans for Designated Facilities*, and 40 C.F.R. 60, Subpart Cf, *Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills*.

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West Virginia is also herein providing notice to the EPA that 45 C.S.R. 23, effective June 1, 2018, codified the incorporation by reference the NSPS under 40 C.F.R. Part 60, Subpart XXX, as of June 1, 2017.

2.0. Request

WV has one or more existing MSW landfills that commenced construction, modification, or reconstruction on or before July 17, 2014 and therefore, is herein submitting a revision to its State Plan and implementing the EGs of 40 C.F.R. 60, Subpart Cf, *Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills,* as required by 40 C.F.R. 60 § 60.30f(a).

WV legislative rule, 45 C.S.R. 23 *Control of Air Pollution from Municipal Solid Waste Landfills,* establishes and adopts the EGs and compliance times of 40 C.F.R. 60, Subpart Cf. The owner or operator of an MSW landfill must comply with all applicable standards of performance, requirements, and provisions of 40 C.F.R. 60, Subpart Cf as set forth in section 7 of 45 C.S.R. 23, including any reference methods, performance specifications, and other test methods.

The WV Department of Environmental Protection (DEP) is requesting that the EPA approve the *West Virginia State Plan Revision for the Control of Air Pollution from Municipal Solid Waste Landfills*, submitted in accordance with 40 C.F.R. § 60.30f(a). The plan implements the EGs of 40 C.F.R. 60, Subpart Cf, *Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills,* under 45 C.S.R. 23 and fulfills the state's obligations under § 111(d)(1) of the CAA.

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3.0. Background

The WV DEP last submitted a CAA § 111(d) MSW landfill plan to the EPA on May 29, 1998 with amendments dated May 15, 2000 and December 20, 2000. The EPA approved the WV State Plan that established emission limits for existing MSW landfills and provided for the implementation and enforcement of those limits [66 Fed. Reg. 28375, May 23, 2001].

Section 111 of the CAA requires the EPA to review and, if appropriate, revise standards of performance for new sources at least every eight years. On August 29, 2016, the EPA published the *Standards of Performance for Municipal Solid Waste Landfills*. To avoid possible confusion regarding which MSW landfills would be subject to the revised requirements, the EPA established a new subpart (40 C.F.R. 60, Subpart XXX) rather than updating the previous subpart (40 C.F.R. 60, Subpart WWW). The requirements in 40 C.F.R. 60, Subpart XXX apply to MSW landfills for which construction, reconstruction, or modification commenced after July 17, 2014.

Based on its review of the MSW landfill category, the EPA also decided to revise the EGs for existing sources that were last promulgated on March 12, 1996, as amended on June 16, 1998, February 24, 1999, and April 10, 2000. The EPA published 40 C.F.R. 60 Subpart Cf, *Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills,* on August 26, 2016. A summary of significant revisions follow. The EGs retained the design capacity thresholds of 2.5 million megagrams (Mg) and 2.5 million cubic meters (m^3) but reduced the nonmethane organic compounds (NMOC) emission threshold for the installation and removal of a gas collection and control system (GCCS) from 50 Mg/yr to 34 Mg/yr for MSW landfills that were not closed by September 27, 2017. The EPA added an alternative site-specific emission threshold determination

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methodology, referred to as "Tier 4" based on surface emissions monitoring, to specify the conditions under which an MSW landfill must install and operate a GCCS. The EPA also finalized a closed landfill subcategory for MSW landfills that closed on or before September 27, 2017. The EPA provided criteria to determine when it is appropriate to cap or remove all or a portion of the GCCS. The EPA addressed issues relating to MSW landfill gas treatment. The EPA revised wellhead operational standards and surface monitoring requirements. The standards in the EGs apply at all times, including periods of startup, shutdown, and malfunction

4.0. State Plan Requirements

WV legislative rule 45 C.S.R. 23 adopted the EGs in 40 C.F.R. 60, Subpart Cf. Provided below is a demonstration that the State Plan satisfies the requirements for an MSW landfill state plan submittal in accordance with 40 C.F.R. 60, Subpart B and 40 C.F.R. 60, Subpart Cf.

4.1. Source Inventory

Subpart B [40 C.F.R. § 60.25(a)]

The plan shall include an inventory of all designated facilities.

Subpart Cf - Designated Facilities [40 C.F.R. § 60.31f]

A designated facility is each existing MSW landfill for which construction, reconstruction, or modification was commenced on or before July 17, 2014. Physical or operational changes made to an existing MSW landfill solely to comply with an EG are not considered a modification or reconstruction; and therefore, would not cause an existing MSW landfill to be subject to the NSPS requirements for new MSW landfills.

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WV Plan

Section 4 of 45 C.S.R. 23 provides the requirements for MSW landfills constructed, modified, or reconstructed on or after May 30, 1991 and before July 17, 2014. The following designated facilities are subject to the requirements for existing MSW landfills under section 7 of 45 C.S.R. 23:

- Each MSW landfill that commenced construction on or after May 30, 1991 and before July 17, 2014; or
- Each MSW landfill that commenced reconstruction or modification on or after May 30, 1991 and before July 17, 2014; and
- Each MSW landfill that was previously subject to 40 C.F.R. part 60, subpart WWW.

Section 6 of 45 C.S.R. 23 provides the requirements for MSW landfills constructed, modified, or reconstructed before May 30, 1991. The following designated facilities are subject to the requirements for existing MSW landfills under section 7 of 45 C.S.R. 23:

- Each MSW landfill that commenced construction before May 30, 1991; or
- Each MSW landfill that commenced reconstruction or modification before May 30, 1991; and
- Each MSW landfill that was previously subject to 40 C.F.R. part 60, subpart Cc.

45 C.S.R. 23 § 7.2 specifies the applicability requirements as adopted from 40 C.F.R. § 60.31f.

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The WV source inventory for existing and new sources is provided in the tables below and includes active existing MSW landfills and existing MSW landfills in the closed landfill subcategory that closed on or before September 27, 2017. If there is an applicable existing or new MSW landfill located in WV and not identified below, the owner or operator would be subject to the requirements of 45 C.S.R. 23 and this plan.

Active MSW Landfill Source Inventory (Existing and New Sources)		
Facility Name	**Facility ID#**	**Mailing Address**
Brooke/Velero	009-00053	Rt. 2, Box 410, Collier, WV 26035
Charleston Landfill	039-00461	P.O. Box 4514 Charleston, WV 25364
Capels Landfill aka McDowell County Landfill aka Copper Ridge Landfill	047-00111	36 Elkhorn St. Welch, WV 24801
Disposal Service, Inc.	079-00103	P.O. Box 4514 Charleston, WV 25364
Greenbrier County	025-00062	P.O. Box 1664 Lewisburg, WV 24901
HAM Sanitary Landfill LLC	063-00007	P.O. Box 576 Peterstown, WV 24963
Meadowfill	033-00128	1488 Dawson Dr., Suite 101 Bridgeport, WV 26330
Mercer County Landfill	055-00100	749 Frontage Road Princeton, WV 24740
Nicholas County Landfill	067-00098	P.O. Box 59 Calvin, WV 26660
L.C.S. Services aka North Mountain	003-00036	P.O. Box 1070 Hedgesville, WV 25427
Northwestern Landfill	107-00121	510 East Dry Run Road Parkersburg, WV 26104
Pocahontas County	075-00022	900 10th Avenue Marlington, WV 24954
Raleigh County	081-00155	200 Fernandez Drive Beckley, WV 25801

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Active MSW Landfill Source Inventory (Existing and New Sources) (cont.)		
Facility Name	**Facility ID#**	**Mailing Address**
S&S Landfill	033-00129	4439 Good Hope Pike Clarksburg, WV 26301
Short Creek Landfill aka Northfork Landfill	069-00071	258 North Fork Road Wheeling, WV 26003
Sycamore Landfill	079-00105	4301 Sycamore Ridge Road Hurricane, WV 25526
Tucker County Landfill	093-00017	P.O. Box 445 Davis, WV 26260
Wetzel County Landfill	103-0034	Rt. 1 Box 156A New Martinsville, WV 26155

MSW Closed Landfill Source Inventory		
Facility Name	**Facility ID#**	**Mailing Address**
Webster County Landfill	101-0031	1350 Excelsior Road Webster Springs, WV 26288

4.2. Emissions Inventory

Subpart B [40 C.F.R. § 60.25(a)]

The plan shall include emissions data for the designated pollutants and information related to the emissions as specified in 40 C.F.R. 60, Appendix D. Data must be summarized, and the emission rates of designated pollutants must be correlated with applicable emission standards.

WV Plan

The tables below provide the NMOC emission rates for each active MSW landfill and for each MSW landfill in the closed landfill subcategory for MSW landfills that closed on or before September 27, 2017. MSW landfills in this subcategory continue to be subject to an NMOC emission threshold of 50 Mg/yr for determining when controls must be installed or can be removed.

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Active MSW Landfill Emissions Inventory Table				
Facility Name	**Is the Design Capacity >2.5 x 10^6 Mg?**	**NMOC Emission Rate (Mg/yr)**	**Is the facility NMOC emission rate > 34 Mg/yr?**	**Is the facility subject to Subpart Cf or XXX?**
Brooke Valero	Yes	338.40[a]	Yes	Cf[c]
Charleston Landfill	Yes	4.5[a]	No	Cf[c]
Capels Landfill aka McDowell County Landfill aka Copper Ridge Landfill	Yes	5.82[a]	No	Cf[c]
Disposal Service, Inc.	Yes	6.54[a]	No	Cf[c]
Greenbrier County	No	NA	No	Cf[c]
H.A.M. Sanitary Landfill LLC	No	NA	NA	XXX
Meadowfill	Yes	10.10[a]	No	Cf[c]
Mercer County Landfill	Yes	2.90[a]	No	Cf[c]
Nicholas County Landfill	No	NA	NA	Cf[c]
L.C.S. Services aka North Mountain	Yes	2.3[a]	No	Cf[c]
Northwestern Landfill	Yes	10.52[a]	No	Cf[c]
Pocahontas County	No	NA	NA	Cf[c]
Raleigh County	Yes	25.06[a]	No	Cf[c]
S&S Landfill	Yes	4.03[a]	No	Cf[c]
Short Creek Landfill aka Northfork Landfill	Yes	608.3[a]	Yes	Cf[c]
Sycamore Landfill	Yes	36.5[b]	Yes	Cf[c]
Tucker County Landfill	Yes	3.37[a]	No	XXX
Wetzel County Landfill	Yes	64.04[a]	Yes	Cf[c]

[a] Values are based on 2017 NMOC emission rate data submitted by each facility.
[b] Value is based on 5-year projected estimate submitted in 2016.
[c] Subject to 40 C.F.R. 60, Subpart Cf, as adopted in 45 C.S.R. 23, effective June 1, 2018.

Closed MSW Landfill Subcategory Emissions Inventory Table				
Facility Name	**Is the Design Capacity >2.5 x 10^6 Mg?**	**NMOC Emission Rate (Mg/yr)**	**Is the facility NMOC emission rate > 50 Mg/yr?**	**Is the facility subject to Subpart Cf or XXX?**
Webster County Landfill	No	NA	NA	Cf

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4.3. Compliance Schedules and Increments of Progress

Subpart B [40 C.F.R. §§ 60.24(a) and (e)]

Each plan shall include compliance schedules. 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.

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.

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; (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.

Subpart Cf - Compliance Times [40 C.F.R. § 60.32f]

Planning, awarding of contracts, installing, and starting up MSW landfill air emission collection and control equipment must be completed within 30 months after the date the NMOC emission rate report shows NMOC emissions are equal to or exceed 34 Mg/yr (50 Mg/yr for the MSW closed landfill subcategory); or within 30 months after the date of the most recent NMOC emission

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rate report shows the NMOC emissions are equal to or exceed 34 Mg/yr (50 Mg/yr for the MSW closed landfill subcategory), if Tier 4 surface emissions monitoring shows a surface emission concentration of 500 ppm methane or greater.

WV Plan

Section 7.3 of 45 C.S.R. 23 establishes requirements for compliance times. The owner or operator is required to install and start up air emission collection and control equipment capable of meeting the requirements provided in 45 C.S.R. 23 § 7.4 by the compliance times in the table below.

Compliance Times for Existing Facilities Subject to 40 C.F.R. 60, Subpart Cf as set forth in Section 7 of 45 C.S.R. 23		
Category of Sources	**Requirement**	**Compliance Date**
Each active MSW landfill required by §45-23-7.4 to install a GCCS	Install and start-up air emissions collection and control equipment capable of meeting requirements of 45 C.S.R. 23 § 7.	30 months after NMOC emission rate report showed NMOC emissions ≥ 34 Mg/yr; OR 30 months after the most recent NMOC emission rate report shows NMOC emissions are ≥ 34 Mg/yr, if Tier 4 surface emissions monitoring shows a surface emission concentration ≥ 500 ppm methane
Each MSW landfill in the closed landfill subcategory required by §45-23-7.4 to install a GCCS	Install and start-up air emissions collection and control equipment capable of meeting requirements of 45 C.S.R. 23 § 7.	30 months after the most recent NMOC emission rate report shows NMOC emissions are ≥ 50 Mg/yr; OR 30 months after the most recent NMOC emission rate report shows NMOC emissions are ≥ 50 Mg/yr for the closed MSW landfill subcategory, if Tier 4 surface emissions monitoring shows a surface emission concentration ≥ 500 ppm methane

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The table below provides the increments of progress to achieve compliance for each designated facility or category of facilities that is required to install and start-up air emission collection and control equipment capable of meeting the requirements of 45 C.S.R. 23 § 7.4.

Facility Name or Category of Sources	**Increment of Progress**	**Compliance Date**
Any MSW landfill subject to Subpart Cf[a],	Submit an initial design capacity report per §45-23-7.9.a.	June 1, 2019
Any MSW landfill subject to Subpart Cf[a] with a design capacity ≥ 2.5 x 10^6 Mg and 2.5 x 10^6 m^3	Submit an initial NMOC emission rate report per §45-23-7.9.c.	June 1, 2019
Any active MSW landfill subject to Subpart Cf[a] with a design capacity ≥ 2.5 x 10^6 Mg and 2.5 x 10^6 m^3	Prepare and submit to the Secretary a GCCS design plan, approved by a professional engineer that meets §45-23-7.9.d .	One year after the first NMOC emission rate report in which the NMOC emission rate ≥ 34 Mg/yr
Any closed MSW landfill subcategory subject to Subpart Cf[a] with a design capacity ≥ 2.5 x 10^6 Mg and 2.5 x 10^6 m^3	Prepare and submit to the Secretary a GCCS design plan, approved by a professional engineer that meets §45-23-7.9.d .	One year after the first NMOC emission rate report where the NMOC emission rate ≥ 50 Mg/yr
Each active MSW landfill required to install a GCCS under §45-23-7.4	Plan, award contracts, install, and start-up air emission collection and control equipment capable of meeting requirements of 45CSR23 § 7.	30 months after NMOC emission rate report showed NMOC emissions ≥ 34 Mg/yr; OR 30 months after the most recent NMOC emission rate report shows NMOC emissions are ≥ 34 Mg/yr, if Tier 4 surface emissions monitoring shows a surface emission concentration ≥ 500 ppm methane

[a] as set forth in §45-23-7.

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Facility Name or Category of Sources	Increment of Progress	Compliance Date
Each MSW landfill in the closed landfill subcategory required to install a GCCS under §45-23-7.4	Plan, award contracts, install, and start-up air emission collection and control equipment capable of meeting requirements of §45-23-7.	30 months after the most recent NMOC emission rate report shows NMOC emissions are ≥ 50 Mg/yr; OR 30 months after the most recent NMOC emission rate report shows NMOC emissions are ≥ 50 Mg/yr for the closed MSW landfill subcategory, if Tier 4 surface emissions monitoring shows a surface emission concentration ≥ 500 ppm methane

The compliance schedule requirements under 45 C.S.R. 23 §7.3 were adopted from the 40 C.F.R. 60, Subpart Cf emission guidelines and therefore, meet the state plan and EG requirements of 40 C.F.R. 60, Subparts B and Cf.

4.4. Emission Standards and Operational Standards

4.4.a. Emission Standards

Subpart B [40 C.F.R. § 60.24(a)]

Each plan shall include emission standards. Emission standards shall either be based on an allowance system or prescribe allowable rates of emissions except when it is clearly impracticable. Emission standards shall apply to all designated facilities within the state.

Subpart Cf - MSW Landfill Emissions [40 C.F.R. § 60.33f]

Each owner or operator of an MSW landfill having a design capacity greater than or equal to 2.5 million megagrams by mass and 2.5 million cubic meters by volume must collect and control

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emissions at each MSW landfill that meets the conditions of 40 C.F.R. § 60.33f(a); and either install a GCCS or calculate an initial NMOC emission rate. The NMOC emission rate shall be recalculated annually except as allowed.

A state plan must include provisions for the installation of a GCCS that meets the requirements in 40 C.F.R. § 60.33f(b) and for the control of the gas collected from the MSW landfill using control devices that meet the requirements in 40 C.F.R. § 60.33f(c).

Each owner or operator of an MSW landfill having a design capacity less than 2.5 million megagrams by mass and 2.5 million cubic meters by volume must submit an initial design capacity report per 40 C.F.R. § 60.38f(a).

WV Plan

The MSW landfill emission requirements are provided in 45 C.S.R. 23 § 7.4. Each owner or operator of a MSW landfill with 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 emissions at each MSW landfill that meet the conditions of §45-23-7.4.a. The collection system requirements are provided in §45-23-7.4.b; the control system requirements are provided in §45-23-7.4.c; and the emissions requirements are provided in §45-23-7.4.e. The design capacity requirements are provided in §45-23-7.4.d; each owner or operator of a MSW landfill with a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters shall either install a GCCS or calculate an initial NMOC emission rate for the landfill. The NMOC emission rate shall be recalculated annually except as allowed under §45-23-7.9.c.3.

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Each owner or operator of an MSW landfill having a design capacity less than 2.5 million megagrams by mass and 2.5 million cubic meters by volume must submit an initial design capacity report in accordance with §45-23-7.4.d. Removal criteria, adopted from 40 C.F.R. 60 § 60.33f(f), provided in section 7.4.f of 45 C.S.R. 23.

4.4.b. Operational Standards

Subpart Cf - Operational Standards for Collection and Control Systems [40 C.F.R. § 60.34f] and Specifications for Active Collection Systems [40 C.F.R. § 60.40f]

A state plan must include provisions for operational standards for an MSW landfill with a GCCS and specifications for active collection systems.

WV Plan

Specifications for active collection systems are provided in §45-23-7.5.a. The owner or operator shall site active collection wells, horizontal collectors, surface collectors or other extraction devices at a sufficient density throughout all gas producing areas using the procedures provided in §45-23-7.5.a.

Operational standards for GCCSs are provided in §45-23-7.5.b. Each owner or operator of an MSW landfill with a GCCS used to comply with sections 7.4.b and 7.4.c of 45 C.S.R. 23 must meet the operational standard requirements provided in §45-23-7.5.b.

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The emissions and operational standards requirements of 45 C.S.R. 23 were adopted from the 40 C.F.R. 60, Subpart Cf emission guidelines and therefore, meet the state plan and EG requirements of 40 C.F.R. 60, Subparts B and Cf.

4.5. Performance Testing, Monitoring, Recordkeeping, and Reporting

4.5.a. Compliance and Performance Testing

Subpart B [40 C.F.R. § 60.24(b)(2)]

Test methods and procedures for determining compliance with the emission standards shall be specified in the state plan.

Subpart Cf - Test Methods and Procedures and Compliance Provisions [40 C.F.R. §§ 60.35f and 60.36f]

A state plan must include the 40 C.F.R. § 60.35f provisions to calculate the MSW landfill NMOC emission rate or to conduct a surface emission monitoring demonstration and the 40 C.F.R. § 60.36f compliance provisions.

WV Plan

Testing requirements provided in §45-23-7.6 include NMOC emission rate calculation requirements and surface emission monitoring demonstration requirements.

Compliance requirements are provided in §§45-23-7.7 and 7.2.e. The requirements for existing MSW landfills apply at all times, including periods of startup, shutdown or malfunction. During

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periods of startup, shutdown or malfunction, the owner or operator shall comply with the work practice specified in 7.5.b.5 in lieu of compliance with the provisions in section 7.7.

The compliance and performance testing requirements of 45 C.S.R. 23 were adopted from the 40 C.F.R. 60, Subpart Cf emission guidelines and therefore, meet the state plan and EG requirements of 40 C.F.R. 60, Subparts B and Cf.

4.5.b. Monitoring

Subpart B [§ 60.25(b)]

Each plan shall provide for monitoring the compliance status with applicable emission standards.

Subpart Cf - Monitoring of Operations [§60.37f]

A state plan must include the monitoring provisions under 40 C.F.R. §60.37f, except as provided in § 60.38f(d)(2).

WV Plan

The monitoring requirements were adopted from the 40 C.F.R. 60, Subpart Cf emission guidelines and are provided in §45-23-7.8.

The monitoring requirements of 45 C.S.R. 23 meet the state plan and EG requirements of 40 C.F.R. 60, Subparts B and Cf.

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4.5.c. Recordkeeping and Reporting

Subpart B [§§ 60.25 (b) and (c)]

Each plan shall, as a minimum, provide for legally enforceable procedures 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. Each plan shall, as a minimum, provide for periodic inspection and, when applicable, testing of designated facilities.

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

Subpart Cf - Recordkeeping and Reporting Guidelines [§§ 60.39f and 60.38f]

A state plan must include the 40 C.F.R. § 60.39f recordkeeping guidelines and the 40 C.F.R. § 60.38f reporting guidelines.

WV Plan

Recordkeeping and reporting requirements are established in §45-23-7.10 and §45-23-7.9, respectively, and are adopted from the EGs. Reporting requirements include the following: (a) Design capacity report; (b) Amended design capacity report; (c) NMOC emission rate report; (d) GCCS design plan; (e) Revised design plan; (f) Closure report; (g) Equipment removal report; (h) Annual report; (i) Initial performance test report; (j) Electronic reporting; (k) Corrective action and the corresponding timeline; (l) Liquids addition; and (m) Tier 4 notification.

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45 C.S.R. 23 § 7.2.c specifies conditions requiring an owner or operator to obtain a Title V operating permit. The WV Title V operating program is codified under 45 C.S.R. 30 and was last approved by the EPA at 81 Fed. Reg. 7463, March 14, 2016.

Other sections of the state plan provide additional information requested by Subpart B. Please refer to the following sections of this plan:

- 4.5.a for information regarding compliance and performance testing;
- 4.5.b for information regarding monitoring;
- 4.6 for information regarding public participation;
- 4.8 for information regarding enforceable state mechanisms for implementation; and
- 4.9 for information regarding legal authority

The recordkeeping and reporting requirements of 45 C.S.R. 23 were adopted from the 40 C.F.R. 60, Subpart Cf emission guidelines and therefore, meet the state plan and EG requirements of 40 C.F.R. 60, Subparts B and Cf.

4.6. Public Participation

Subpart B [40 C.F.R. §§ 60.23(c) - (f)]

The state is required to conduct one or more public hearings on the plan revision. The state plan must include certification that the hearing for the state plan was held in accordance with § 60.23(d), 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. Notice of the hearing shall be given

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at least 30 days prior to the hearing date and shall include the information required under § 60.23(d). The state shall prepare and retain, for a minimum of two years, a record of each hearing for inspection by any interested party. The record, at a minimum, shall contain a list of witnesses together with the text of each presentation. Certification that each hearing was held in accordance with 40 C.F.R. § 60.23(c) with the notice required by § 60.23(d) must be submitted with each state plan revision along with the list of witnesses and their organizational affiliations appearing at the hearing and a brief written summary of each presentation or written submission.

WV Plan

Prior to submitting this plan revision, the DEP allowed opportunity for public comment, held a public hearing on the plan, and provided notification to the EPA Region 3 Air Protection Division Director in a letter to Cristina Fernandez dated July 17, 2018. The notice of the public hearing was published on July 20, 2018 as a Class 1 legal advertisement in the Charleston Newspapers and was published on July 20, 2018 in the WV State Register, providing at least 30-day notice prior to the hearing. The public hearing was held on August 20, 2018 at the DEP headquarters located at 601 57th Street, SE, Charleston, WV at 5:30 p.m.

The DEP certified in the plan transmittal letter that the public hearing was held in accordance with 40 C.F.R. § 60.23(d). Records of the hearing will be maintained in accordance with 40 C.F.R. § 60.23(e) and will be maintained for at least two years.

As required under 40 C.F.R. § 60.23(f), notices of the public hearing, the hearing sign-in sheet of attendees including their organizational affiliations, the transcript from the public hearing, the

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public comment received during the notice period and the response to comment document, are included in Appendix B of this plan.

The public participation requirements for the WV State Plan revision meet the state plan requirements of 40 C.F.R. 60, Subparts B.

4.7. Progress Reports

Subpart B [§§ 60.25 (e and f)]

The state is required to submit progress reports in plan enforcement to the EPA on an annual basis. The annual progress report must include the following information:

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 40 C.F.R. § 60.25(a) 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 40 C.F.R. § 60.25(a) or in previous progress reports.

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6. Submission of copies of technical reports on all performance testing on designated facilities conducted under 40 C.F.R. § 60.25(b)(2), complete with concurrently recorded process data.

WV Plan

The WV DEP, DAQ last submitted the CAA § 111(d) plan Annual Progress Report for Existing Municipal Solid Waste Landfills to Regional Administrator Cosmo Servidio, EPA Region 3, on July 9, 2018 in accordance with the requirements of 40 C.F.R. §§ 60.25(e) and (f). WV DEP remains committed to submitting the progress plan enforcement reports to the EPA on an annual basis.

WV has fulfilled the progress report requirements of 40 C.F.R. 60, Subparts B.

4.8. Identification of Enforceable State Mechanisms for Implementation

Provided herein are the enforceable mechanisms WV selected to implement the new source performance standards of 40 C.F.R. 60, Subpart XXX, *Standards of Performance for Municipal Solid Waste Landfills that Commenced Construction, Reconstruction, or Modification after July 17, 2014,* and the EGs of 40 C.F.R. 60, Subpart Cf, *Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills.*

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4.8.a. Implementation of New Source Performance Standards

Subpart XXX

40 C.F.R. § 60.760 specifies test methods and procedures authorities provided under 40 C.F.R. § 60.764(a)(5) are retained by the EPA and are not transferred to the State.

WV Plan

45 C.S.R. 23, *Control of Air Pollution from Municipal Solid Waste Landfills,* was promulgated by the WV DEP following the passage of Senate Bill 163 in the WV 2018 legislative session, with signature by the Governor on February 27, 2018. Legislative rule 45 C.S.R. 23 became effective June 1, 2018 and is included as Appendix A to this plan.

The Secretary adopted and incorporated by reference 40 C.F.R. 60, Subpart XXX including any applicable reference methods, performance specifications, and other test methods, appended to the standard and contained in the subpart as of June 1, 2017 in section 3.1 of 45 C.S.R. 23. The authority for 40 C.F.R. § 60.764(a)(5) is retained by the EPA, as stated in paragraph §45-23-8.1.b.8.

§45-23-5 requires owners or operators of a new MSW landfill to comply with all applicable standards of performance, requirements, and provisions of 40 C.F.R. 60 Subpart XXX, including any reference methods, performance specifications and other test methods associated with Subpart XXX. No person shall construct or operate a new MSW landfill that results in a violation of 40 C.F.R. 60, Subpart XXX or 45 C.S.R. 23.

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4.8.b. Implementation of Emission Guidelines for Existing MSW Landfills

Subpart Cf [40 C.F.R. § 60.30f]

If you are the Administrator of an air quality program with one or more existing MSW landfills, a state plan must be submitted that implements the EGs of 40 C.F.R. 60, Subpart Cf. The authority to approve alternative methods to determine the NMOC concentration or a site-specific methane generation rate constant (k) will not be delegated to the state.

WV Plan

45 C.S.R. 23 was promulgated by the WV DEP following the passage of Senate Bill 163 during the WV 2018 legislative session, with signature by the Governor on February 27, 2018. Legislative rule 45 C.S.R. 23 became effective June 1, 2018 and is included as Appendix A to this plan. As stated in §45-23-8.1.b.8, the authority for 40 C.F.R. § 60.764(a)(5) to approve other methods to determine the NMOC concentration or a site specific methane generation rate constant as an alternative to the methods under 40 C.F.R. § 60.764(a)(3) and (4) is retained by the EPA.

45 C.S.R. 23 adopts the EGs and compliance times for MSW landfills in 40 C.F.R. 60, Subpart Cf. 45 C.S.R. 23 § 7.1 requires the owner or operator of an existing MSW landfill to comply with the applicable compliance times, requirements, and provisions of 40 C.F.R. 60, Subpart Cf as set forth in §45-23-7, including any reference methods, performance specification, and other test methods. No person shall construct, reconstruct, modify, or operate, or cause to be reconstructed, modified, or operated, an existing MSW landfill that results in a violation of 45 C.S.R. 23.

The WV DEP satisfied the EG implementation requirements of 40 C.F.R. 60, Subparts B and Cf.

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4.9. Legal Authority

Pursuant to 40 C.F.R. § 60.26(a), state plans must show that states have legal authority to carry out the plan including the authority to adopt emission standards and compliance schedules applicable to designated facilities and to enforce applicable laws, regulations, standards, compliance schedules and seek injunctive relief.

The DAQ has the statutory and regulatory authority under W.Va. Code §§ 22-5-1 et seq. (see Appendix C) to adopt and enforce rules and regulations to implement the State Plan. W. Va. Code § 22-5-4(a)(4) authorizes the Director to promulgate legislative rules relating to the control of air pollution. The DAQ promulgated legislative rule 45 C.S.R. 23 with an effective date of June 1, 2018, that incorporates by reference the Municipal Solid Waste Landfills NSPS (40 C.F.R. 60, Subpart XXX). Such incorporation by reference of model legislation is a permissible means of enacting law under West Virginia law. Additionally, 45 C.S.R. 23 adopts the EGs for existing MSW landfills under 40 C.F.R. 60, Subpart Cf.

The requirements for an existing MSW landfill are provided under section 7 of 45 C.S.R. 23. The applicable emission standards and other requirements for existing facilities are established in 45 C.S.R. 23 § 7.1. The pertinent provisions from the federal regulations relating to compliance schedules for existing facilities are contained in subsection 7.3 of 45 C.S.R. 23.

State plans must also demonstrate the state has authority to obtain information necessary to determine 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.

Regarding the enforcement of applicable laws, regulations, standards, and compliance schedules, the DEP has several enforcement mechanisms available under state law, including permits, administrative orders, civil and criminal penalties, and injunctive relief, detailed below.

The emission standards and compliance schedules included in the plan are codified at 45 C.S.R. 23. Any violation of such standards or schedules constitutes a violation of a WV rule and is subject to civil penalties of up to $10,000 for each day of violation and criminal penalties of up to $25,000 for each day of violation and/or imprisonment for up to one year in jail (W.Va. Code § 22-5-6). In addition to civil and criminal penalties, the DEP may seek injunctive relief against any person in violation of 45 C.S.R. 23 (W. Va. Code § 22-5-7).

In addition to penalties and injunctive relief, the DEP may compel compliance with 45 C.S.R. 23 through the issuance of administrative orders. Under W. Va. Code §§ 22-5-4(a)(5) and (6) and 22-5-5, the DEP may issue administrative orders including cease and desist orders and orders suspending, modifying or revoking permits. Such administrative orders may be appealed to the Air Quality Board, an administrative board with quasi-judicial powers. The DEP may also collect administrative penalties from a source in violation of a rule under an administrative consent order (W. Va. Code § 22-5-4(a)(18)).

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Existing facilities may also be required to obtain permits, in which case, emission standards and compliance schedules from 45 C.S.R. 23 are included as enforceable permit conditions.[1] The existing facility may be required to obtain a preconstruction permit under W. Va. Code § 22-5-11 and/or an operating permit under W. Va. Code § 22-5-12.[2] The operating permit must ensure compliance with all applicable requirements, including the emission standards and compliance schedules required under 45 C.S.R. 23; W. Va. Code §§ 22-5-11 and 12; also see WV 45 C.S.R. 13 §§ 5.7 and 5.11 and WV 45 C.S.R. 30 Section 5 and 45 C.S.R. 30 Section 12.

In addition to the authority to adopt and enforce the applicable emission standards and compliance schedules, the DEP has authority to obtain information necessary to determine the compliance status of existing facilities, including requiring facilities to maintain compliance records, pursuant to W.Va. Code § 22-5-4(a)(14), which states:

(a) The director is authorized:

> (14) To require any and all persons who are directly or indirectly discharging air pollutants into the air to file with the director such information as the director may require in a form or manner prescribed by him or her for such purpose, including, but not limited to, location, size and height of discharge outlets, processes employed, fuels used and the nature and time periods of duration of discharges.

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[1] Under W. Va. Code § 22-5-6, the violation of a permit is subject to the same enforcement remedies as the violation of a rule.

[2] The State's applicable preconstruction permit program rules consist of 45 C.S.R. 13 for minor sources, 45 C.S.R. 14 for major PSD sources, and 45 C.S.R. 19 for major sources located in non-attainment areas. The State's operating permit program (Title V program) is found at 45 C.S.R. 30.

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Such information shall be filed with the director, when and in such reasonable time, and in such manner as the director may prescribe.

The DEP also has the authority to conduct inspections and tests of existing facilities pursuant to W.Va. Code § 22-5-4 (a)(6) and (9), which state:

(a) The director is authorized:

(6) To consider complaints, subpoena witnesses, administer oaths, make investigations, and hold hearings relevant to the promulgation of rules and the entry of compliance orders hereunder; and

(9) To enter and inspect any property, premise, or place on or at which a source of air pollutants is located or is being constructed, installed or established at any reasonable time for the purpose of ascertaining the state of compliance with this article and rules promulgated under the provisions of this article. No person shall refuse entry or access to any authorized representative of the director who requests entry for purposes of inspection, and who presents appropriate credentials; nor shall any person obstruct, hamper or interfere with any such inspection: Provided, that nothing contained in this article eliminates any obligation to follow any process that may be required by law.

An additional authority which must be demonstrated in the plan is the agency's authority to require the use of monitors and require emission reports of existing facilities. This authority exists in W.Va. Code § 22-5-4 (a)(15), which states:

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(15) To require the owner or operator of any stationary source discharging air pollutants to install such monitoring equipment or devices as the director may prescribe and to submit periodic reports on the nature and amount of such discharges to the director.

In addition to the general statutory authority discussed above, the DEP has specific regulatory authority under 45 C.S.R. 23 to require existing facilities to comply with requirements related to: emissions; gas collection and control systems; testing; compliance; monitoring; recordkeeping; and reporting, and in accordance with the applicable provisions of 40 C.F.R. 60, Subpart Cf. Furthermore, the DEP has authority to include conditions in any administrative orders or permits issued to existing facilities to ensure compliance with such conditions. W.Va. Code §§ 22-5-4(a)(5), 22-5-5, 22-5-11, and 22-5-12.

Lastly, the state must have authority to make emission data from existing facilities available to the public. The DEP has such authority under W.Va. Code § 22-5-10, which states in pertinent part:

> All air quality data, emission data, permits, compliance schedules, . . . shall be available to the public, except that upon a showing satisfactory to the director . . . that records, reports, data, or information . . . would divulge methods or processes entitled to protection as trade secrets . . . the director shall consider such records. . . confidential: Provided, that such confidentiality does not apply to the types and amounts of air pollutants discharged and that such records . . . may be disclosed to other officers, employees or authorized representatives of the state or of the federal environmental protection agency . . . Provided, however, That such officers, employees or authorized representatives . . . protect such records . . . to the same degree required of the director by this section. . . .

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See, 45 C.S.R. 31 § 2.4 for the definition of the term "types and amounts of pollutants discharged."

In addition to W.Va. Code § 22-5-10, the state's Freedom of Information Act requires the DEP to make records available to the public upon request, unless such records specifically fall under one of the exemptions contained in the Act (one of which is an exemption for "trade secrets"). See, W.Va. Code §§ 29B-1-1 et seq.

In conclusion, the WV DEP possesses the requisite authority to adopt, implement, and enforce all necessary elements of the WV §§ 111(d) plan for MSW landfills, except as outlined in 40 C.F.R. §§ 60.764(a)(3), (4), and (5).

The WV DEP has satisfied the legal authority requirements of 40 C.F.R. 60, Subparts B.

5.0. Conclusion

WV has one or more existing MSW landfills that commenced construction, modification, or reconstruction on or before July 17, 2014 and herein submits this revised State Plan to implement the EGs of 40 C.F.R. 60, Subpart Cf, *Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills,* as required by 40 C.F.R. 60 § 60.30f(a).

WV legislative rule, 45 C.S.R. 23 *Control of Air Pollution from Municipal Solid Waste Landfills,* established and adopted the EGs and compliance times of 40 C.F.R. 60, Subpart Cf. The owner or operator of an MSW landfill located in WV must comply with all applicable standards of performance, requirements, and provisions of 40 C.F.R. 60, Subpart Cf as set forth in section 7 of

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45 C.S.R. 23, including any reference methods, performance specifications, and other test methods.

Having herein demonstrated that all required elements for the MSW landfills state plan submittal have been satisfied and having provided the mechanisms to implement and enforce such standards, the WV DEP respectfully requests that the EPA approve this *West Virginia State Plan Revision for the Control of Air Pollution from Municipal Solid Waste Landfills*. The WV State Plan implements the EGs of 40 C.F.R. 60, Subpart Cf, *Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills,* under 45 C.S.R. 23, effective June 1, 2018, and fulfills the state's obligations under § 111(d)(1) of the CAA.

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APPENDICIES

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APPENDIX A

45 C.S.R. 23
FINAL RULE

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WEST VIRGINIA SECRETARY OF STATE

MAC WARNER

ADMINISTRATIVE LAW DIVISION

eFILED

3/22/2018 3:39 PM

NOTICE OF FINAL FILING AND ADOPTION OF A LEGISLATIVE RULE AUTHORIZED BY THE WEST VIRGINIA LEGISLATURE

AGENCY: Air Quality

TITLE-SERIES: 45-23

RULE TYPE: Legislative

Amendment to Existing Rule: Yes

Repeal of existing rule: No

RULE NAME: Control of Air Pollution from Municipal Solid Waste Landfills

CITE STATUTORY AUTHORITY: W. Va. Code § 22-5-4

The above rule has been authorized by the West Virginia Legislature.

Authorization is cited in (house or senate bill number) SB163

Section § 64-3-1(f) Passed On 2/27/2018 12:00:00 AM

This rule is filed with the Secretary of State. This rule becomes effective on the following date:

June 1, 2018

This rule shall terminate and have no further force or effect from the following date:

00/00/0000

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TITLE 45
LEGISLATIVE RULE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
AIR QUALITY

SERIES 23
CONTROL OF AIR POLLUTION FROM MUNICIPAL SOLID WASTE LANDFILLS

§45-23-1. General.

1.1. Scope. -- This rule establishes and adopts standards of performance pursuant to § 111(b) of the federal Clean Air Act (CAA) and establishes emission guidelines and compliance times pursuant to § 111(d) of the federal CAA for the control of certain designated pollutants from the following municipal solid waste landfill categories:

1.1.a. Municipal solid waste landfills subject to the emission guidelines and compliance times promulgated by the U.S. EPA under 40 CFR Part 60, Subpart Cc and set forth in section 6 of this rule;

1.1.b. Municipal solid waste landfills subject to the standards of performance promulgated by the U.S. EPA under 40 CFR Part 60, Subpart WWW and set forth in section 4 of this rule;

1.1.c. Municipal solid waste landfills subject to the emission guidelines and compliance times promulgated by the U.S. EPA under 40 CFR Part 60, Subpart Cf and set forth is section 7 of this rule; and

1.1.d. Municipal solid waste landfills that commenced construction, reconstruction or modification after July 17, 2014 are subject to the standards of performance promulgated by the U.S. EPA under 40 CFR Part 60, Subpart XXX and set forth in section 5 of this rule;

1.2. Authority. -- W. Va. Code § 22-5-4.

1.3. Filing Date. -- March 22, 2018.

1.4. Effective Date. -- June 1, 2018.

1.5. This rule codifies general procedures and criteria to implement a program of specific standards of performance, emission guidelines, and compliance times for municipal solid waste landfills.

1.6. Neither compliance with the provisions of this rule nor the absence of specific language to cover particular situations constitutes approval or implies consent or condonation of any emission that is released in any locality in such a manner or amount as to cause or contribute to statutory air pollution. Neither does it exempt nor excuse any person from complying with other applicable laws, ordinances, regulations or orders of governmental entities having jurisdiction over municipal solid waste landfills.

1.7. Incorporation by Reference. -- Federal Counterpart Regulation. The Secretary has determined that a federal counterpart rule exists. In accordance with the Secretary's recommendation, and with limited exception, this rule incorporates by reference, 40 CFR Part 60 Subpart XXX effective June 1, 2017.

§45-23-2. Definitions.

2.1. "Administrator" means the Administrator of the United States Environmental Protection Agency or his or her designated representative.

2.2. "CFR" means the Code of Federal Regulations published by the Office of the Federal Register, National Archives and Records Service, General Services Administration.

2.3. "Clean Air Act" or "CAA" means the federal Clean Air Act, as amended, 42 U.S.C. § 7401, et seq.

2.4. "Closed landfill" means a landfill into which solid waste is no longer being placed and into which no additional solid wastes will be placed without first filing a notification of modification as prescribed in 40 CFR § 60.7(a)(4) (incorporated by reference into State law at 45CSR16). Once the owner or operator has filed a notification of modification, and places additional solid waste in the landfill, the landfill is no longer closed.

2.5. "Closed landfill subcategory" means a closed landfill that has submitted a closure report on or before September 27, 2017, as specified in subdivision 7.9.f below

2.6. "Existing" means each municipal solid waste landfill that commenced construction, reconstruction or modification on or before July 17, 2014.

2.7. "Modification" means an increase in the permitted volume design capacity of the landfill 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.

2.8. "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. A MSWL may also receive other types of Resource Conservation and Recovery Act (RCRA) Subtitle D wastes (40 CFR § 257.2), such as commercial solid waste, nonhazardous sludge, conditionally exempt small quantity generator waste, and industrial solid waste. Portions of a MSWL may be separated by access roads. A MSWL may be publicly or privately owned. A MSWL may be a new MSWL, an existing MSWL, or a lateral expansion.

2.9. "Municipal solid waste landfill emissions" or "MSWL emissions" means gas generated by the decomposition of organic waste deposited in a MSWL or derived from the evolution of organic compounds in the waste.

2.10. "NMOC", (Non Methane Organic Compounds) means nonmethane organic compounds, as measured according to the provisions of subsection 7.6. below.

2.11. "Person" means any and all persons, natural or artificial, including the state of West Virginia or any other state, the United States of America, any municipal, statutory, public or private corporation organized or existing under the laws of this or any other state or country, and any firm, partnership or association of whatever nature.

2.12. "ppm" means parts per million.

2.13. "Secretary" means the Secretary of the Department of Environmental Protection or such other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8.

2.14. "Treatment System" means a system that filters, de-waters, and compresses landfill gas for sale or beneficial use.

2.15. Other words and phrases used in this rule, unless otherwise indicated, shall have the meaning ascribed to them in 40 CFR Part 60 Subparts A, B, Cc, Cf, WWW and XXX as applicable. Words and

phrases not defined therein shall have the meaning given to them in the federal Clean Air Act.

§45-23-3. Adoption of standards.

3.1. The Secretary hereby adopts and incorporates by reference the standards of performance and definitions set forth in 40 CFR Part 60, Subparts B and XXX, including any applicable reference methods, performance specifications, and other test methods, which are appended to these standards and contained in this rule.

§45-23-4. Requirements for municipal solid waste landfills constructed, modified, or reconstructed on or after May 30, 1991 and before July 17, 2014.

4.1. The owner or operator of a MSWL under subsection 4.2 below shall comply with all applicable standards of performance, requirements, and provisions of 40 CFR Part 60, Subpart Cf set forth in section 7 of this rule, including any reference methods, performance specifications, and other test methods. No person shall construct or operate a MSWL that results in a violation of this rule.

4.2. Applicability. The designated facility to which section 7 of this rule applies is each MSWL that:

4.2.a. Commenced construction on or after May 30, 1991 and before July 17, 2014; or

4.2.b. Commenced reconstruction or modification on or after May 30, 1991 and before July 17, 2014; and

4.2.c. Was previously subject to 40 CFR Part 60, Subpart WWW.

4.3. Each MSWL that was defined as "new" in the previous revision of 45CSR23 is defined as an "existing" MSWL.

§45-23-5. Requirements for new municipal solid waste landfills.

5.1. The owner or operator of a new MSWL under subsection 5.2 below shall comply with all applicable standards of performance, requirements, and provisions of 40 CFR Part 60 Subpart XXX, including any reference methods, performance specifications, and other test methods associated with Subpart XXX. No person shall construct or operate a new MSWL that results in a violation of 40 CFR Part 60, Subpart XXX or this rule.

5.2. Applicability. -- The owner or operator of a MSWL that meets the following criteria shall be subject to the requirements for a new MWSL set forth in section 3 above. A new MSWL is a MSWL that either:

5.2.a. Commenced construction after July 17, 2014; or

5.2.b. Commenced reconstruction or modification after July 17, 2014.

5.3. Physical or operational changes made to a MSWL solely to comply with 40 CFR Part 60, Subparts Cc, Cf, or WWW are not considered construction, reconstruction or modification for the purposes of applicability.

5.4. Activities required by or conducted pursuant to a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Resource Conservation and Recovery Act (RCRA), or the West Virginia Voluntary Remediation and Redevelopment Act (VRRA) are not considered construction or modification for the purposes of applicability.

§45-23-6. Requirements for existing municipal solid waste landfills constructed, reconstructed, or modified before May 30, 1991.

6.1. The owner or operator of a MSWL under subsection 6.2 below shall comply with all applicable standards of performance, requirements and provisions of 40 CFR Part 60, Subpart Cf, set forth in section 7 of this rule, including any reference methods, performance specifications, and other test methods. No person shall construct or operate a MSWL that results in a violation of this rule.

6.2. Applicability. The designated facility to which section 7 of this rule applies is each MSWL that:

6.2.a. Commenced construction before May 30, 1991; or

6.2.b. Commenced reconstruction or modification before May 30, 1991; or

6.2.c. Each MSWL that was subject to 40 CFR Part 60, Subpart Cc and the requirements of this rule.

§45-23-7. Requirements for existing municipal solid waste landfills.

7.1. Requirements for existing MSWLs. -- The owner or operator of an existing MSWL under subsection 7.2 below shall comply with the applicable compliance times, requirements, and provisions of 40 CFR Part 60 Subpart Cf, set forth in section 7, including any reference methods, performance specifications, and other test methods. No person shall construct, reconstruct, modify or operate, or cause to be reconstructed, modified, or operated, an existing MSWL that results in a violation of this rule.

7.2. Applicability.

7.2.a. Each MSWL that commenced construction, reconstruction or modification before July 17, 2014 is subject to the requirements for an existing MSWL under section 7.

7.2.b. Physical or operational changes made to an existing MSWL solely to comply with the requirements of section 7 are not considered a modification or reconstruction.

7.2.c. Title V operating permits.

7.2.c.1. If the MSWL design capacity is less than 2.5 million megagrams or 2.5 million cubic meters, the owner or operator is not required to obtain an operating permit under 45CSR30 unless the MSWL is otherwise subject to 45CSR30.

7.2.c.2. If the MSWL design capacity is greater than 2.5 million megagrams or 2.5 million cubic meters, the owner or operator shall submit a timely and complete permit application in accordance with 45CS30 within one year of the effective date of this rule.

7.2.c.3. The owner or operator is not required to maintain an operating permit under 45CSR30 for the MSWL after it is closed, if the landfill is not otherwise subject to the requirements of 45CSR30 and if either of the following conditions are met:

7.2.c.3.A. The landfill was never required to install and operate a gas collection and control system under subdivision 7.4 below; or

7.2.c.3.B. The landfill meets the conditions for control system removal specified in subdivision 7.4.f. below.

7.2.d. The owner or operator is not subject to the following reports when a MSWL is in the

closed landfill subcategory, if the owner or operator submitted the reports under the provisions of 40 CFR Part 60, Subpart WWW, and 45CSR23 on or before July 17, 2014:

7.2.d.1. Initial design capacity report per subdivision 7.9.a.

7.2.d.2. Initial or subsequent NMOC emission rate report per subdivision 7.9.c, provided that the most recent NMOC emission rate report indicated the NMOC emissions were below 50 Mg/yr.

7.2.d.3. Collection and control system design plan per subdivision 7.9.d.

7.2.d.4. Closure report per subdivision 7.9.f.

7.2.d.5. Equipment removal report per subdivision 7.9.g.

7.2.d.6. Initial annual report per subdivision 7.9.h.

7.2.d.7. Initial performance test report per subdivision 7.9.i.

7.2.e. The provisions of section 7 apply at all times, including periods of startup, shutdown or malfunction. During periods of startup, shutdown or malfunction, the owner or operator shall comply with the work practice specified in 7.5.b.5 in lieu of the compliance provisions in 7.7.

7.3. Compliance times. -- The owner or operator shall install and start up MSWL air emission collection and control equipment capable of meeting the requirements provided in subsection 7.4 no later than:

7.3.a. Thirty months after an NMOC emission rate report shows NMOC emissions are equal to or exceed 34 megagrams per year; or

7.3.b. Thirty months after an NMOC emission rate report shows NMOC emissions are equal to or exceed 50 megagrams per year for the closed landfill subcategory; or

7.3.c. Thirty months after the most recent NMOC emission rate report shows NMOC emissions are equal to or exceed 34 megagrams per year, if Tier 4 surface emissions monitoring shows a surface emission concentration of 500 ppm methane or greater.

7.3.d. Thirty months after the most recent NMOC emission rate report shows NMOC emissions are equal to or exceed 50 megagrams per year for the closed landfill subcategory, if Tier 4 surface emissions monitoring shows a surface emission concentration of 500 ppm methane or greater.

7.4. Municipal solid waste landfill emissions requirements.

7.4.a. Each owner or operator of a MSWL with 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 MSWL emissions at each MSWL that meet the following conditions:

7.4.a.1. The landfill accepted waste at any time after November 8, 1987, or the MSWL has additional design capacity available for future waste deposition;

7.4.a.2. The landfill commenced construction, reconstruction or modification before July 17, 2014;

7.4.a.3. The landfill has an NMOC emission rate greater than or equal to 34 megagrams per year, or Tier 4 surface emissions monitoring shows a surface emission concentration 500 ppm methane or

greater; or

7.4.a.4. The landfill is in the closed landfill subcategory and has an NMOC emission rate greater than or equal to 50 megagrams per year, or Tier 4 surface emissions monitoring shows a surface emission concentration of 500 ppm methane or greater.

7.4.b. Collection system. -- For each MSWL that meets the criteria under subdivision 7.4.a, the gas collection and control system installation shall meet the requirements under paragraphs 7.4.b.1 through 7.4.b.3 and subdivision 7.4.c

7.4.b.1. The owner or operator shall install and start up a collection and control system that captures the gas generated within the landfill within 30 months after:

7.4.b.1.A. The first annual report in which the NMOC emission rate is equal to or exceeds 34 megagrams per year, unless Tier 2 or Tier 3 sampling demonstrates that the NMOC emission rate is less than 34 megagrams per year, per paragraph 7.9.d.4; or

7.4.b.1.B. The first annual NMOC emission rate report for a landfill in the closed landfill subcategory that the NMOC emission rate equals or exceeds 50 megagrams per year, unless Tier 2 or Tier 3 sampling demonstrates that the NMOC emission rate is less than 50 megagrams per year, per paragraph 7.9.d.4; or

7.4.b.1.C. The most recent NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year based on Tier 2, if the Tier 4 surface emissions monitoring shows a surface methane emission concentration of 500 ppm methane or greater per part 7.9.d.4.C.

7.4.b.2. An active collection system shall:

7.4.b.2.A. 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 system equipment;

7.4.b.2.B. 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 five years or more if active or two years or more if closed or at final grade;

7.4.b.2.C. Collect gas at a sufficient extraction rate; and

7.4.b.2.D. Be designed to minimize off-site migration of subsurface gas.

7.4.b.3. A passive collection system shall:

7.4.b.3.A. Comply with subparagraphs 7.4.b.2.A, 7.4.b.2.B, and 7.4.b.2.D.; and

7.4.b.3.B. Be installed with liners installed on the bottom and all sides in all areas in which gas will be collected, per 40 CFR § 258.40.

7.4.c. Control system. -- Control devices shall meet the following requirements, except as provided in 60 CFR § 60.24.

7.4.c.1. The owner or operator shall design and operate a non-enclosed flare according to the parameters established in 40 CFR § 60.18 and 45CSR16, except as noted in subdivision 7.8.d; or

7.4.c.2. The owner or operator shall design and operate each control system to reduce NMOC by 98 weight percent, or when an enclosed combustion device is used for control, either reduce

NMOC by 98 weight percent or reduce the outlet NMOC concentration to less than 20 ppm by volume, dry basis as hexane at three percent (3%) oxygen or less. The reduction efficiency or concentration in ppm by volume shall be established by an initial performance test using the test methods set out in subdivision 7.6.d and shall be completed no later than 180 days after the initial startup of the approved control system. The performance test is not required for boilers and process heaters with design heat input capacities equal to or greater than 44 megawatts that burn landfill gas for compliance with section 7.

7.4.c.2.A. If a boiler or process heater is used as the control device, the landfill gas stream shall be introduced into the flame zone.

7.4.c.2.B. 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 subsection 7.8.

7.4.c.2.C. For the closed landfill subcategory, the initial or most recent performance test to comply with section 4 or section 6 conducted on or before July 17, 2014 demonstrates compliance.

7.4.c.3. The owner or operator shall route the collected gas to a treatment system that processes the collected gas for subsequent sale or beneficial use, such as fuel for combustion, production of vehicle fuel, production of high-Btu gas for pipeline injection or use as a raw material in a chemical manufacturing process. Venting of treated landfill gas to the ambient air is not allowed. If the treated landfill gas cannot be routed for subsequent sale or beneficial use, then the treated landfill gas shall be controlled according to either paragraphs 7.4.c.1 or 7.4.c.2.

7.4.c.4. All emissions from any atmospheric vent from the gas treatment system are subject to the requirements of subdivisions 7.4.b or 7.4.c. Atmospheric vents located on the condensate storage tank are not part of the treatment system and are exempt from the requirements of subdivisions 7.4.b and 7.4.c.

7.4.d. Design capacity. -- Each owner or operator of an MSWL 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 Secretary per subdivision 7.9.a. The owner or operator may calculate design capacity in either megagrams or cubic meters for comparison with the exemption values. The owner or operator shall document any density conversions and submit them with the report. Submittal of the initial design capacity report satisfies the requirements of section 7, except as provided in paragraphs 7.4.d.1 and 7.4.d.2.

7.4.d.1. The owner or operator shall submit an amended design capacity report if required by subdivision 7.9.b.

7.4.d.1.A. If the design capacity increase is the result of a modification that was commenced after July 17, 2014, then the landfill becomes a new MSWL subject to section 5.

7.4.d.1.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, then the landfill remains an existing MSWL subject to section 7.

7.4.d.2. The owner or operator shall comply with subdivision 7.4.e if there is an increase in the maximum design capacity of any MSWL with an initial design capacity less than 2.5 million megagrams or 2.5 million cubic meters that has a revised maximum design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters.

7.4.e. Emissions. -- Each owner or operator of a MSWL with 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 according to subdivisions 7.4.b and 7.4.c or calculate an initial NMOC emission rate for the landfill using the procedures specified in subdivision 7.6.a. The NMOC emission rate shall be recalculated annually except as provided in paragraph 7.9.e.3.

7.4.e.1. If the calculated NMOC emission rate is less than 34 megagrams per year, the owner or operator shall:

7.4.e.1.A. Submit an annual NMOC emission rate report per 7.9.e except as provided in 7.9.e.3; and

7.4.e.1.B. Recalculate the NMOC emission rate annually per subdivision 7.6.a until either the calculated NMOC emission rate is equal to or greater than 34 megagrams per year or the landfill is closed.

7.4.e.1.B.1. If the initial or annual calculated NMOC emission rate is equal to or greater than 34 megagrams per year, the owner or operator shall either:

7.4.e.1.B.1.(a) Comply with subdivisions 7.4.b and 7.4.c;

7.4.e.1.B.1.(b) Calculate NMOC emissions using the next higher tier in section 7.6; or

7.4.e.1.B.1.(c) Conduct a surface emission monitoring demonstration according to paragraph 7.6.a.11.

7.4.e.1.B.2. The owner or operator shall submit a closure report per subdivision 7.9.f if the landfill is permanently closed, except for the exemption allowed under paragraph 7.2.d.4.

7.4.e.1.B.3. If the most recently calculated NMOC emission rate is equal to or greater than 50 megagrams per year for the closed landfill subcategory, the owner or operator shall either:

7.4.e.1.B.3.(a) Submit a gas collection and control system design plan per 7.9.d, except for the exemptions allowed under paragraph 7.2.d.3, and install a collection and control system per subdivisions 7.4.b and 7.4.c;

7.4.e.1.B.3.(b) Calculate NMOC emissions using the next higher tier in section 7.6; or

7.4.e.1.B.3.(c) Conduct a surface emission monitoring demonstration according to the requirements of paragraph 7.6.a.11.

7.4.e.2. If the calculated NMOC emission rate is equal to or greater than 34 megagrams per year using Tier 1, 2 or 3 procedures, the owner or operator shall either:

7.4.e.2.A. Submit a collection and control system design plan prepared by a professional engineer to the Secretary within one year as required by subdivision 7.9.d, except for the exemption allowed under 7.2.d.3;

7.4.e.2.B. Calculate the NMOC emissions using a higher tier in section 7.6; or

7.4.e.2.C. Conduct a surface emission monitoring demonstration according to the requirements under paragraph 7.6.a.11.

7.4.e.3. For the closed landfill subcategory, 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 shall either:

7.4.e.3.A. Submit a collection and control system design plan as required by subdivision 7.9.d, except for the exemption allowed under 7.2.d.3;

7.4.e.3.B. Calculate NMOC emissions using a higher tier in section 7.6; or

7.4.e.3.C. Conduct a surface emission monitoring demonstration according to the requirements under paragraph 7.6.a.11.

7.4.f. Removal Criteria. -- The owner or operator may cap, remove or decommission the collection and control system if the following criteria are met:

7.4.f.1. The landfill is a closed landfill and a closure report was submitted to the Secretary per subdivision 7.9.f.;

7.4.f.2. The collection and control system has been in operation a minimum of 15 years, or the owner or operator can demonstrate that the gas collection and control system is unable to operate for 15 years due to declining gas flow;

7.4.f.3. The NMOC emission rate at the landfill is less than 34 megagrams per year on three successive test dates, calculated per subdivision 7.6.b. The test dates shall be a minimum of 90 days apart and a maximum of 180 days apart; and

7.4.f.4. The NMOC emission rate for the closed landfill subcategory is less than 50 megagrams per year on three successive test dates, as calculated per subdivision 7.6.b. The test dates shall be a minimum of 90 days apart and a maximum of 180 days apart.

7.5. Collection and Control Systems Requirements.

7.5.a. Specifications for Active Collection Systems.

7.5.a.1. To comply with subdivision 7.4.b, the owner or operator 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 the Secretary has approved alternative procedures.

7.5.a.1.A. A professional engineer shall certify interior collection devices to achieve comprehensive control of surface gas emissions. The following factors shall be addressed in the design:

7.5.a.1.A.1. Depths of refuse;

7.5.a.1.A.2. Refuse gas generation rates and flow characteristics;

7.5.a.1.A.3. Cover properties;

7.5.a.1.A.4. Gas system expandability;

7.5.a.1.A.5. Leachate and condensate management;

7.5.a.1.A.6. Accessibility;

7.5.a.1.A.7. Compatibility with filling operations;

7.5.a.1.A.8. Integration with closure end use;

7.5.a.1.A.9. Air intrusion control;

7.5.a.1.A.10. Corrosion resistance;

7.5.a.1.A.11. Fill settlement;

7.5.a.1.A.12. Resistance to the refuse decomposition heat; and

7.5.a.1.A.13. Ability to isolate individual components or sections for repair or troubleshooting without shutting down the entire collection system.

7.5.a.1.B. The sufficient density of gas collection devices determined in paragraph 7.5.a.1 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.

7.5.a.1.C. The placement of gas collection devices shall control all gas producing areas, except as provided by paragraphs 7.5.a.1.C.1 and 7.5.a.1.C.2.

7.5.a.1.C.1. Any segregated area of asbestos or nondegradable material may be excluded from collection if documented per subdivision 7.10.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 Secretary upon request.

7.5.a.1.C.2. Any nonproductive area of the landfill may be excluded from control, provided that the owner or operator demonstrates that the total of all excluded areas contributes less than one percent (1%) of the total amount of NMOC emissions from the landfill. The owner or operator shall document the amount, location, and age of the material and provide that information to the Secretary upon the Secretary's request. The owner or operator shall make a separate NMOC emissions estimate for each section proposed for exclusion and shall compare the sum of all such sections to the NMOC emissions estimate for the entire landfill.

7.5.a.1.C.2.(a). The NMOC emissions from each section proposed for exclusion shall be calculated using Equation 1:

$$Q_i = 2kL_oM_i(e^{-kt_i})(C_{NMOC})(3.6 \times 10^{-9}) \qquad \text{(Eq. 1)}$$

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 section, years.
C_{NMOC} = Concentration of NMOC, ppm by volume.
$3.6x10^{-9}$ = Conversion factor.

7.5.a.1.C.2.(b). If the owner or operator proposes to exclude or cease gas collection and control from nonproductive, physically separated (e.g., separately lined), closed areas that already have gas collection systems, the owner or operator shall calculate NMOC emissions from each physically separated closed area using either Equation 4 in section 7.6 or Equation 1.

7.5.a.1.C.3. The owner or operator shall use the values for k and C_{NMOC} determined by field testing if the owner or operator performed field testing to determine 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). If the owner or operator did not perform field testing, the owner or operator shall use the default values for k, L_o, and C_{NMOC} provided in section 7.6 or the alternative values from section 7.6. The owner or operator may subtract the mass of nondegradable solid waste contained within the given section from the total mass of the section when estimating emissions, provided that the owner or operator documents the nature, location, age, and amount of the nondegradable material per subparagraph 7.5.a.1.C.1.

7.5.a.2. To comply with subdivision 7.4.b, the owner or operator shall construct the gas collection devices using the following equipment or procedures:

7.5.a.2.A. The owner or operator shall construct the landfill gas extraction components of polyvinyl chloride (PVC), high density polyethylene (HDPE) pipe, fiberglass, stainless steel or other nonporous corrosion resistant material of suitable dimensions to:

7.5.a.2.A.1. Convey projected amounts of gases;

7.5.a.2.A.2. Withstand installation, static, and settlement forces; and

7.5.a.2.A.3. Withstand planned overburden or traffic loads.

7.5.a.2.A.4. The collection system shall extend as necessary to comply with emission and migration standards.

7.5.a.2.A.5. The 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. The perforations shall be situated to prevent excessive air infiltration.

7.5.a.2.B. Vertical wells shall:

7.5.a.2.B.1 Be placed to avoid endangering underlying liners; and

7.5.a.2.B.2. Shall address the occurrence of water within the landfill.

7.5.a.2.C. Holes and trenches constructed for piped wells and horizontal collectors shall be a sufficient cross-section to allow for their proper construction and completion including, for example, centering of pipes and placement of gravel backfill.

7.5.a.2.D. Collection devices shall be designed to prohibit indirect short circuiting of air into the cover or refuse into the collection system or gas into the air.

7.5.a.2.E. The dimension of any gravel used around pipe perforations shall be sized not to penetrate or block the perforations.

7.5.a.2.F. Collection devices may be connected to the collection header pipes below or above the landfill surface.

7.5.a.2.F.1. The connector assembly surface emission monitor shall include a positive closing throttle valve, any necessary seals and couplings, access couplings, and at least one sampling port.

7.5.a.2.F.2. The collection devices shall be constructed of PVC, HDPE, fiberglass, stainless steel or other nonporous material of suitable thickness to prevent discharge.

7.5.a.3. To comply with subdivision 7.4.c, the owner or operator shall convey the landfill gas

through header piping to a control system in compliance with subdivision 7.4.c. 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 and shall meet the following requirements:

7.5.a.3.A. For existing collection systems, the flow data shall be used to project the maximum flow rate. If flow data does not exist, follow the requirements in 7.5.a.3.B.

7.5.a.3.B. For new collection systems, the maximum flow rate shall comply with paragraph 7.7.a.1.

7.5.b. Operational standards for collection and control systems. -- Each owner or operator of an MSWL with a gas collection and control system used to comply with subdivisions 7.4.b and 7.4.c shall:

7.5.b.1. Operate the collection system such that gas is collected from each area, cell or group of cells in the MSWL that solid waste has been in place for:

7.5.b.1.A. Five years or more if active; or

7.5.b.1.B. Two years or more if closed or at final grade.

7.5.b.2. Operate the collection system with negative pressure at each wellhead except under the following conditions:

7.5.b.2.A. A fire or increased well temperature. The owner or operator shall record instances when positive pressure occurs in efforts to avoid a fire. The owner or operator shall submit these records with the annual reports per paragraph 7.9.h.

7.5.b.2.B. Use of a geomembrane or synthetic cover. The owner or operator shall develop acceptable pressure limits in the design plan to meet the requirements of 7.9.d.

7.5.b.2.C. A decommissioned well. A well may experience a static positive pressure after shut down to accommodate for declining flows. The owner or operator shall obtain approval from the Secretary for all design changes per subdivision 7.9.d.

7.5.b.3. The owner or operator shall operate each interior wellhead in the collection system with a landfill gas temperature less than 55 degrees Centigrade (131 degrees Fahrenheit). The owner or operator may establish a higher value operating temperature at a particular well if the owner or operator satisfies all criteria below:

7.5.b.3.a. The owner or operator shall submit a higher operating value demonstration to the Secretary; and

7.5.b.3.b. The supporting data shall demonstrate that the elevated parameter neither causes fires nor significantly inhibits anaerobic decomposition by killing methanogens; and

7.5.b.3.c. The Secretary approved the higher value operating temperature.

7.5.b.4. The owner or operator shall operate the collection system to maintain the methane concentration below 500 ppm above the background at the landfill surface. To determine if this level is exceeded, the owner or operator shall:

7.5.b.4.A. Conduct surface testing using an organic vapor analyzer, flame ionization detector or other portable monitor meeting the specifications in subdivision 7.7.d.;

7.5.b.4.B. Conduct surface testing around the perimeter of the collection area and along a pattern that traverses the landfill at no more than 30-meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover and all cover penetrations;

7.5.b.4.C. Monitor any openings that are within an area of the landfill where waste has been placed and a gas collection system is required; and

7.5.b.4.E. Develop a surface monitoring design plan that includes a topographical map with the monitoring route and the rationale for any site-specific deviations from the 30-meter intervals.

7.5.b.4.F. To determine if the level established in 7.5.b.4. is exceeded, the owner or operator may:

7.5.b.4.F.1 Establish an alternative traversing pattern that ensures equivalent coverage.; and

7.5.b.4.F.2. Exclude from the surface testing areas with steep slopes or other dangerous areas.

7.5.b.5. Vent all collected gases to a control system designed and operated in compliance with subdivision 7.4.c. In the event the collection or control system stops operating, the owner or operator shall:

7.5.b.5.A. Shut down the gas mover system; and

7.5.b.5.B. Close all valves in the collection and control system contributing to venting of the gas to the atmosphere within one hour of the collection or control system not operating.

7.5.b.6. Operate the control system at all times when the collected gas is routed to the system.

7.5.b.7. Take corrective action as specified in paragraphs 7.7.a.3 and 7.7.a.4 or subdivision 7.7.c if monitoring demonstrates that the operational requirements in paragraphs 7.5.b.2, 7.5.b.3, or 7.5.b.4 are not satisfied. If the owner or operator takes corrective actions per subsection 7.7, the Secretary shall not consider the monitored exceedance a violation of the operational requirements in this section.

7.6. Testing requirements

7.6.a. NMOC emission rate:

7.6.a.1. The owner or operator shall calculate the NMOC emission rate using either Equation 2 or Equation 3 below:

7.6.a.2. The owner or operator may use both Equation 2 and Equation 3 if:

7.6.a.2.A. The owner or operator knows the actual year-to-year solid waste acceptance rate for part of the life of the landfill; or

7.6.a.2.B. The owner or operator does not know the actual year-to-year solid waste acceptance rate for part of the life of the landfill.

7.6.a.3. The owner or operator shall use the following values in both Equation 2 and Equation 3:

7.6.a.3.A. k is 0.05 per year,

7.6.a.3.B. L_o is 170 cubic meters per megagram and

7.6.a.3.C. C_{NMOC}. is 4,000 ppm by volume as hexane

7.6.a.3.D. If the landfill is located in geographical areas with a 30-year annual average precipitation of less than 25 inches, as measured at the nearest representative official meteorological site, the k value is 0.02 per year.

7.6.a.4. The owner or operator shall use Equation 2 if it knows the actual year-to-year solid waste acceptance rate. When calculating the value for M_i, the owner or operator may subtract the mass of nondegradable solid waste from the total mass of solid waste in a particular section of the landfill, if the owner or operator maintains documentation of the nature and amount of such wastes.

$$M_{NMOC} = \sum_{i=1}^{n} 2kL_oM_i\left(e^{-kt_i}\right)(C_{NMOC})(3.6\ x\ 10^{-9}) \qquad Equation\ 2$$

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, ppm by volume as hexane.
3.6×10^{-9} = Conversion factor.

7.6.a.5. The owner or operator shall use Equation 3 if it knows the actual year-to-year solid waste acceptance rate. When calculating the value of R, the owner or operator may subtract the mass of nondegradable solid waste from the total mass of solid waste in a particular section of the landfill, if the owner or operator maintains documentation of the nature and amount of such wastes.

$$M_{NMOC} = 2L_oR\left(e^{-kc} - e^{-kt}\right)C_{NMOC}(3.6\ x\ 10^{-9}) \qquad Equation\ 3$$

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, ppm by volume as hexane.
c = Time since closure, years; for an active landfill c = 0 and e^{-kc} = 1.
3.6×10^{-9} = Conversion factor.

7.6.a.6. Tier 1 procedures. -- The owner or operator shall compare the calculated NMOC mass emission rate to the standard of 34 megagrams per year:

7.6.a.6.A. If the owner or operator calculates the NMOC emission rate by the methods specified in paragraphs 7.6.a.1 through 7.6.a.3 and it is less than 34 megagrams per year, then the owner or operator shall submit an NMOC emission rate report according to subdivision 7.9.c. below and shall recalculate the NMOC mass emission rate annually as required by subdivision 7.4.e.

7.6.a.6.B. If the owner or operator calculates the NMOC emission rate by the methods specified in paragraphs 7.6.a.1 through 7.6.a.3 and it is equal to or greater than 34 megagrams per year, then the owner or operator shall either:

7.6.a.6.B.1. Submit a gas collection and control system design plan within one year as specified in subdivision 7.9.d and install and operate a gas collection and control system within 30 months according to subdivisions 7.4.b and 7.4.c; or

7.6.a.6.B.2. Determine a site-specific NMOC concentration and recalculate the NMOC emission rate using the Tier 2 procedures in paragraph 7.6.a.7; or

7.6.a.6.B.3. Determine a site-specific methane generation rate constant and recalculate the NMOC emission rate using the Tier 3 procedures in paragraph 7.6.a.9.

7.6.a.7. Tier 2 -- NMOC Calculation. The owner or operator shall determine the site specific NMOC concentration using the following sampling procedure:

7.6.a.7.A. Install a minimum of two sample probes per hectare, evenly distributed over the landfill surface that has retained waste for at least two years;

7.6.a.7.B. If the landfill is larger than 25 hectares in area, the owner or operator is required to take only 50 samples, with the probes evenly distributed across the sample area;

7.6.a.7.C. The owner or operator should locate the sample probes so as to avoid known areas of nondegradable solid waste;

7.6.a.7.D. 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 40 CFR Part 60, Appendix A and 45CSR16;

7.6.a.7.E. The owner or operator may take composite samples from different probes into a single cylinder: provided, that the owner or operator takes equal sample volumes from each probe and:

7.6.a.7.E.1. The owner or operator shall record the sampling rate, collection times, beginning and ending cylinder vacuums or alternative volume measurements for each composite to verify that composite volumes are equal;

7.6.a.7.E.2. Composite sample volumes should not be less than one liter unless the owner or operator can provide evidence to substantiate the accuracy of smaller volumes; and

7.6.a.7.E.3. The owner or operator shall terminate compositing before the cylinder approaches ambient pressure when the measurement accuracy diminishes.

7.6.a.7.F. If the owner or operator takes more than the required number of samples, the owner or operator shall use all samples in the analysis.

7.6.a.7.G. The owner or operator shall divide the NMOC concentration from Method 25 or 25C by six to convert from C_{NMOC} as carbon to C_{NMOC} as hexane.

7.6.a.7.H. If the landfill has an active or passive gas removal system in place, the owner or operator may collect Method 25 or 25C samples from these systems instead of surface probes: provided, that the owner or operator can demonstrate that the removal system sampling is as representative as the two sampling probe per hectare requirement of subparagraph 7.6.a.7.A.

7.6.a.7.I. If the landfill has active collection systems, the owner or operator may collect samples from the common header pipe according to the following:

7.6.a.7.I.1. The owner or operator shall use a sample location upstream from any gas moving, condensate removal or treatment system equipment; and

7.6.a.7.I.2. The owner or operator shall collect a minimum of three samples.

7.6.a.8. Tier 2 procedures.

7.6.a.8.A. The owner or operator shall submit the NMOC concentration results and the NMOC mass emission rate per paragraph 7.9.j.2 within 60 days from the date the owner or operator determined the NMOC concentration and corresponding NMOC emission rate.

7.6.a.8.B. The owner or operator shall recalculate the NMOC mass emission rate using Equation 2 or Equation 3 using the average site-specific NMOC concentration from the collected samples instead of the default value provided in paragraph 7.6.a.3.

7.6.a.8.C. If the resulting NMOC mass emission rate is less than 34 megagrams per year, the owner or operator shall submit an estimate of NMOC emissions in the NMOC emission rate report according to subdivision 7.9.e and shall recalculate the NMOC mass emission rate annually per subdivision 7.4.e. The owner or operator shall retest the site-specific NMOC concentration every five years using the methods specified in subsection 7.6.

7.6.a.8.D. If the owner or operator calculates the NMOC mass emission rate using the Tier 2 site specific NMOC concentration and it is equal to or greater than 34 megagrams per year, the owner or operator shall either:

7.6.a.8.D.1. Submit a gas collection and control system design plan within one year per subdivision 7.9.d and install and operate a gas collection and control system within 30 months per subdivisions 7.4.b and 7.4.c;

7.6.a.8.D.2. Determine a site-specific methane generation rate constant and recalculate the NMOC emission rate using the site specific methane generation rate using the Tier 3 procedures specified in paragraph 7.6.a.9.; and

7.6.a.8.D.3. Conduct a surface emission monitoring demonstration using the Tier 4 procedures specified in paragraph 7.6.a.11.

7.6.a.9. Tier 3. -- Site specific methane generate rate constant. The owner or operator shall:

7.6.a.9.A. Determine the site-specific methane generation rate constant using the procedures in Method 2E of 40 CFR Part 60, Appendix A and 45CSR16;

7.6.a.9.B. Estimate the NMOC mass emission rate using Equation 2 or Equation 3 with the site-specific methane generation rate constant and the site-specific NMOC concentration as determined in paragraph 7.6.a.7;

7.6.a.9.C. Compare the resulting NMOC mass emission rate to the standard of 34 megagrams per year;

7.6.a.9.D. If the NMOC mass emission rate calculated using the Tier 2 site specific NMOC concentration and the Tier 3 site specific methane generation rate is equal to or greater than 34 megagrams per year, either:

7.6.a.9.D.1. Submit a gas collection and control system design plan within one year as per subdivision 7.9.d and install and operate a gas collection and control system within 30 months according to subdivisions 7.4.b and 7.4.c; or

7.6.a.9.D.2. Conduct a surface emission monitoring demonstration using the Tier 4 procedures specified in paragraph 7.6.a.11.

7.6.a.9.E. If the NMOC mass emission rate is less than 34 megagrams per year, the owner or operator shall:

7.6.a.9.E.1. Recalculate the NMOC mass emission rate annually using Equation 2 or Equation 3, using the site-specific Tier 2 NMOC concentration and the Tier 3 methane generation rate constant; and

7.6.a.9.E.2. Submit the NMOC emission rate report per subdivision 7.9.c.

7.6.a.9.F. Use the value obtained for the methane generation rate constant in all subsequent annual NMOC emission rate calculations. The methane generation rate constant is calculated only once.

7.6.a.10. Other methods. -- The owner or operator may use other methods to determine the NMOC concentration or a site specific methane generation rate constant as an alternative to the methods required by paragraphs 7.6.a.3 and 7.6.a.4 if the Administrator approved the method in advance.

7.6.a.11. Tier 4. -- Surface emission monitoring demonstration.

7.6.a.11.A. Applicability. The owner or operator shall only use Tier 4 procedures if the unit can demonstrate the following:

7.6.a.11.A.1. Surface methane emissions are below 500 ppm;

7.6.a.11.A.2. NMOC emissions are greater than or equal to 34 Mg/yr but less than 50 Mg/yr using Tier 1 or Tier 2 procedures;

7.6.a.11.A.3. The landfill meets the requirements of subparagraph 7.6.a.11.J below; and

7.6.a.11.A.4. NMOC emissions are less than 50Mg/yr as indicated by both Tier 1 and Tier 2; if NMOC emissions are greater than 50Mg/yr, the owner or operator shall not use Tier 4.

7.6.a.11.B. The owner or operator shall conduct surface emission monitoring quarterly according to the requirements in paragraph 7.6.a.11.

7.6.a.11.C. The owner or operator shall measure methane surface concentrations using an organic vapor analyzer, flame ionization detector or other portable monitor that meets the requirements of subdivision 7.7.d along the entire perimeter of the landfill and along a pattern that traverses the landfill at less than 30 meter intervals.

7.6.a.11.D. The owner or operator shall determine the background concentration by moving the probe inlet upwind and downwind at least 30 meters from the waste mass boundary of the landfill.

7.6.a.11.E. The owner or operator shall perform surface emission monitoring per Section

8.3.1 of Method 21 of 40 CFR Part 60, Appendix A and 45CSR16, except that the probe inlet shall be placed no more than five centimeters above the landfill surface and measured with a mechanical device such as a wheel on a pole.

7.6.a.11.E.1. The owner or operator shall use a wind barrier, similar to a funnel, when onsite average wind speed exceeds four miles per hour or two meters per second or gusts exceeding ten miles per hour. The owner or operator shall also determine average on-site wind speed in an open area at five minute intervals using an on-site anemometer with a continuous recorder and data logger for the entire duration of the monitoring event. The wind barrier shall surround the surface emission monitor and shall be placed on the ground to ensure wind turbulence is blocked. The owner or operator shall not conduct surface emission monitoring if average wind speed exceeds 25 miles per hour.

7.6.a.11.E.2. The owner or operator shall monitor landfill surface areas using a device that meets the specifications of subdivision 7.7.d where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover, and all cover penetrations.

7.6.a.11.F. The owner or operator shall maintain records of surface emission monitoring per subdivision 7.10.g and submit a Tier 4 surface emissions report per subparagraph 7.9.d.4.C.

7.6.a.11.G. The owner or operator shall submit a gas collection and control system design plan if there is any measured methane 500 ppm or greater from the surface of the landfill within one year of the first measured methane concentration of 500 ppm or greater from the surface of the landfill according to subdivision 7.9.d. The owner or operator shall install and operate a gas collection and control system according to subdivisions 7.4.b and 7.4.c within 30 months of the most recent NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year based on Tier 2 requirements.

7.6.a.11.H. After four consecutive quarterly monitoring periods at a landfill, other than a closed landfill, if there is no measured methane concentration of 500 ppm or greater from the landfill surface, the owner or operator shall continue quarterly surface emission monitoring per Tier 4 requirements.

7.6.a.11.I. After four consecutive quarterly monitoring periods at a closed landfill, if there is no measured methane concentration of 500 ppm or greater from the landfill surface, the owner or operator shall conduct annual surface emission monitoring using the Tier 4 methods.

7.6.a.11.J. If the owner or operator installed and operated a collection and control system that is not required by section 7, then the collection and control system shall meet the following criteria:

7.6.a.11.J.1. Preceding the Tier 4 surface emissions monitoring demonstration, the gas collection and control system shall have operated for a minimum 6,570 out of 8,760 hours; and

7.6.a.11.J.2. During the Tier 4 surface emissions monitoring demonstration, the gas collection and control system shall operate as it would normally to collect and control as much landfill gas as possible.

7.6.b. The owner or operator shall calculate the NMOC emission rate after the installation and startup of a collection and control system to determine when the system can be capped, removed or decommissioned per subdivision 7.4.f, using Equation 4:

$$M_{NMOC} = 1.89 \ x \ 10^{-3} Q_{LFG} C_{NMOC} \qquad Equation\ 4$$

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, ppm by volume as hexane.

7.6.b.1. The owner or operator shall determine the flow rate of landfill gas, Q_{LFG}, by measuring the total landfill gas flow rate at the common header pipe leading to the control system using a gas flow measuring device calibrated per Section 10 of Method 2E of 40 CFR Part 60, Appendix A and 45CSR16.

7.6.b.2. The owner or operator shall determine the average NMOC concentration, C_{NMOC}, by collecting and analyzing landfill gas sampled from the common header pipe prior to the gas moving or condensate removal equipment per Method 25 or 25C of 40 CFR Part 60, Appendix A and 45CSR16. The sample location on the common header pipe shall be prior to any condensate removal or other gas refining units. The owner or operator shall divide the NMOC concentration from Method 25 or 25C by six to convert from C_{NMOC} as carbon to C_{NMOC} as hexane.

7.6.b.3. The owner or operator may use another method to determine:

7.6.b.3.A. Landfill gas flow rate if the owner or operator received prior approval for the alternate method by the Administrator; and

7.6.b.3.B. NMOC concentration if the owner or operator received prior approval for the alternate method by the Administrator.

7.6.b.4. The owner or operator shall submit the results from Equation 4 within 60 days after the date of calculating the NMOC emission rate per paragraph 7.9.j.2.

7.6.c. When calculating emissions for Prevention of Significant Deterioration purposes, the owner or operator shall estimate the NMOC emission rate for comparison to the Prevention of Significant Deterioration major source and significance levels in 45CSR14 using the Compilation of Air Pollutant Emission Factors, Volume I: Stationary Point and Area Sources (AP-42) or other approved measurement procedures.

7.6.d. For the performance test required by paragraph 7.4.c.2, the owner or operator shall calculate the net heating value of the combusted landfill gas as determined in 40 CFR § 60.18(f)(3) and 45CSR16 from the methane concentration in the landfill gas as measured by Method 3C. The owner or operator shall take a minimum of three 30-minute Method 3C samples, but need not take the measurement of other organic components, hydrogen, and carbon monoxide. The owner or operator may use Method 3C determine the landfill gas molecular weight for calculating the flare gas exit velocity under 40 CFR § 60.18(f)(4).

7.6.e. For the performance test required by paragraph 7.4.c.2, the owner or operator shall use Method 25 or 25C (the owner or operator may use Method 25C at the inlet only) of 40 CFR Part 60, Appendix A and 45CSR16 to determine compliance with the 98 weight-percent efficiency or the 20 ppm by volume outlet NMOC concentration level, unless the owner or operator received prior approval by the Administrator for an alternative method per paragraph 7.9.d.2. The owner or operator shall use Method 3, 3A or 3C to determine oxygen for correcting the NMOC concentration as hexane to three percent. In cases where the outlet concentration is less than 50 ppm NMOC as carbon (eight ppm NMOC as hexane), the owner or operator shall use Method 25A in place of Method 25. The owner or operator may use Method 18 in conjunction with Method 25A on a limited basis (compound specific, e.g., methane) or Method 3C to determine methane. The owner or operator shall subtract methane as carbon from the Method 25A total hydrocarbon value as carbon to give NMOC concentration as carbon. The owner or

operator shall divide the NMOC concentration as carbon by six to convert the C_{NMOC} as carbon to C_{NMOC} as hexane. The owner or operator shall use Equation 5 to calculate efficiency:

$$Control\ Efficiency = \frac{(NMOC_{in} - NMOC_{out})}{(NMOC_{in})} \qquad Equation\ 5$$

Where:
$NMOC_{in}$ = Mass of NMOC entering control device.
$NMOC_{out}$= Mass of NMOC exiting control device.

7.6.f. Within 60 days after the date of completing each performance test according to subdivisions 7.6.d and 7.6.e, the owner or operator shall submit the performance test results required by subdivision 7.6.b or 7.6.d, including any associated fuel analyses per paragraph 7.9.j.1.

7.7. Compliance requirements.

7.7.a. The owner or operator shall use the specified methods in subdivisions 7.7.a.1 through 7.7.a.6, except as provided in paragraph 7.9.d.2, to determine whether the gas collection system is in compliance with paragraph 7.4.b.2.

7.7.a.1. To determine compliance with subparagraph 7.4.b.2.A, the owner or operator shall use either Equation 6 or Equation 7 to calculate the maximum expected gas generation flow rate from the landfill. The owner or operator shall use the methane generation rate constant (k) and methane generation potential (L_o) kinetic factors published in the most recent AP-42 or other site specific values the owner or operator has demonstrated to be appropriate and that the Secretary has approved. The owner or operator shall use the value of k determined from the test if k was determined as specified in paragraph 7.6.a.9. The owner or operator shall use a value of no more than 15 years 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.

7.7.a.1.A. For sites with unknown year-to year solid waste acceptance rate:

$$Q_m = 2L_o\, R\left(e^{-kc} - e^{-kt}\right) \qquad Equation\ 6$$

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 = 0 and e^{-kc} =1).

7.7.a.1.B. For sites with known year-to-year solid waste acceptance rate:

$$Q_m = \sum_{i=1}^{n} 2kL_o\, M_i\left(e^{-kt_i}\right) \qquad Equation\ 7$$

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.

7.7.a.1.C. The owner or operator may use the actual flow data to project the maximum expected gas generation flow rate instead of, or in conjunction with, Equation 6 or Equation 7 if the owner or operator installed a collection and control system. If the landfill is still accepting waste, the actual measured flow data will not equal the maximum expected gas generation rate, so the owner or operator shall use calculations using Equation 6 or Equation 7 or other methods to predict the maximum expected gas generation rate over the intended period of use of the gas control system equipment.

7.7.a.2. To demonstrate compliance with subparagraph 7.4.b.2.B determining the sufficient density of gas collectors, the owner or operator shall design a system of vertical wells, horizontal collectors or other collection devices satisfactory to the Secretary that is capable of controlling and extracting gas from all portions of the landfill sufficient to meet all operational and performance standards.

7.7.a.3. To demonstrate compliance with subparagraph 7.4.b.2.C, the owner or operator shall measure gauge pressure in the gas collection header applied to each individual well monthly to determine whether the gas collection system flow rate is sufficient. If a positive pressure exists, the owner or operator shall initiate action to correct the exceedance within five calendar days, except for the three conditions allowed under subdivision 7.5.b.2 below. The owner or operator shall not cause exceedances of other operational or performance standards by use of any attempted corrective measure.

7.7.a.3.A. If negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement of positive pressure, the owner or operator shall conduct a root cause analysis and correct the exceedance as soon as practicable, but not later than 60 days after the first measure of positive pressure. The owner or operator shall keep records per paragraph 7.10.e.3 below.

7.7.a.3.B. If the owner or operator cannot fully implement corrective actions within 60 days following the positive pressure measurement for which the root cause analysis was required, the owner or operator shall conduct a corrective action analysis and develop an implementation schedule to complete the corrective action(s) as soon as practicable, but no more than 120 days following the positive pressure measurement. The owner or operator shall keep records per paragraph 7.10.e.4 below and submit the items required by paragraph 7.9.h.7 in the next annual report.

7.7.a.3.C. If the owner or operator expects corrective action to take longer than 120 days after the initial exceedance to complete, the owner or operator shall submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the Secretary according to paragraphs 7.9.h.7 and 7.9.k and keep records according to paragraph 7.10.e.5.

7.7.a.4. To determine whether excess air infiltration into the landfill is occurring, the owner or operator shall monitor each well monthly for temperature according to paragraph 7.5.b.3 above. If a well exceeds the operating parameter for temperature, the owner or operator shall initiate action to correct the exceedance within five calendar days. Attempted corrective measures shall not cause exceedances of other operational or performance standards.

7.7.a.4.A. If the owner or operator cannot achieve a landfill gas temperature less than 55 degrees Celsius (131 degrees Fahrenheit) within 15 calendar days of the first measurement of landfill gas temperature greater than 55 degrees Celsius (131 degrees Fahrenheit), the owner or operator shall conduct a root cause analysis and correct the exceedance as soon as practicable, but no later than 60 days after the first measurement of landfill gas temperature greater than 55 degrees Celsius (131 degrees Fahrenheit). The owner or operator shall maintain records per paragraph 7.10.e.3 below.

7.7.a.4.B. If the owner or operator cannot fully implement corrective actions within 60 days following the measurement for which the root cause analysis was required, the owner or operator shall also conduct a corrective action analysis and develop an implementation schedule to complete the corrective action(s) as soon as practicable, but no more than 120 days following the measurement of landfill gas temperature greater than 55 degrees Celsius (131 degrees Fahrenheit). The owner or operator shall maintain records per paragraph 7.10.e.4 and submit the information listed in paragraph 7.9.h.7 in the next annual report.

7.7.a.4.C. If the owner or operator expects corrective action to take longer than 120 days after the initial exceedane to complete, the owner or operator shall submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the Secretary according to paragraph 7.9.h.7 and subdivision 7.9.k and maintain records per paragraph 7.10.e.5.

7.7.a.5. An owner or operator seeking to demonstrate compliance with subparagraph 7.4.b.2.D through the use of a collection system that does not meet the specifications of subdivision 7.5.a shall provide information satisfactory to the Administrator according to paragraph 7.9.d.3 demonstrating that the owner or operator is controlling off-site migration.

7.7.b. To comply with paragraph 7.5.b.1, the owner or operator shall place each well or design component as specified in the approved design plan per subdivision 7.9.d. The owner or operator shall install each well no later than 60 days after the date on which the initial solid waste has been in place for a period of:

7.7.b.1. Five years or more if active; or

7.7.b.2. Two years or more if closed or at final grade.

7.7.c. To comply with the surface methane operational standard of paragraph 7.5.b.4, the owner or operator shall follow the procedures listed below:

7.7.c.1. Monitor surface concentrations of methane along the entire perimeter of the collection area and along a pattern that traverses the landfill at no more than 30 meter intervals (or a site-specific established spacing), after installation and startup of the gas collection system, for each collection area on a quarterly basis using an organic vapor analyzer, flame ionization detector or other portable monitor that meets the specifications in subdivision 7.7.d;

7.7.c.2. Determine the background concentration 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;

7.7.c.3. Monitor surface emissions during typical meteorological conditions and according to Section 8.3.1 of Method 21 of 40 CFR Part 60, Appendix A and 45CSR16, except that the probe inlet shall be placed within five to ten centimeters of the ground;

7.7.c.4. Record any reading of 500 ppm or more above background at any location as a monitored exceedance and take the actions specified below. If the owner or operator takes the below-specified actions, the Secretary shall not consider the exceedance a violation of the operational requirements of paragraph 7.5.b.4. The owner or operator shall:

7.7.c.4.A. Mark the location of each monitored exceedance and record the location and concentration by determining location using the latitude and longitude coordinates found by an instrument with an accuracy of at least found meters and written in decimal degrees with at least five decimal places;

7.7.c.4.B. Perform cover maintenance or adjust the vacuum of the adjacent wells to increase gas collection in the vicinity of each exceedance and re-monitor the location within ten calendar

days of detecting the exceedance;

7.7.c.4.C. Take additional corrective action if the re-monitoring of the location shows a second exceedance and monitor the location again within ten days of the second exceedance. If the re-monitoring shows a third exceedance for the same location, stop monitoring and take the action specified under subparagraph 7.7.c.4.E;

7.7.c.4.D. Re-monitor one month from the initial exceedance any location that initially showed an exceedance but has a methane concentration less than 500 ppm methane above background at the ten-day re-monitoring specified above. If the one month re-monitoring shows a concentration less than 500 ppm above background, then the owner or operator is not required to perform further monitoring of that location until the next quarterly monitoring period. If the one-month re-monitoring shows an exceedance, the owner or operator shall take the actions specified under subparagraphs 7.7.c.4.C or 7.7.c.4.E; and

7.7.c.4.E. For any location where monitored methane concentration equals or exceeds 500 ppm above background three times within a quarterly period, the owner or operator shall install a new well or other collection device within 120 calendar days of the initial exceedance. The owner or operator may submit to the Secretary for approval an alternative solution to the exceedance, such as upgrading the blower, header pipes or control device, and a corresponding timeline for installation.

7.7.c.5. Implement a program to monitor cover integrity on a monthly basis and implement cover repairs as necessary.

7.7.d. The owner or operator shall meet the following instrumentation specifications and procedures for surface emission monitoring devices to comply with the provisions in subdivision 7.7.c or paragraph 7.6.a.11:

7.7.d.1. The portable analyzer shall meet the instrument specifications of Section 6 of Method 21 of 40 CFR Part 60, Appendix A and 45CSR16 except that "methane" replaces all references to "VOC";

7.7.d.2. The calibration gas shall be methane, diluted to a nominal concentration of 500 ppm in air;

7.7.d.3. To meet the performance evaluation requirements in Section 8.1 of Method 21 of 40 CFR Part 60, Appendix A and 45CSR16, use the instrument evaluation procedures of Section 8.1 of Method 21; and

7.7.d.4. Follow the calibration procedures in Sections 8 and 10 of Method 21 of 40 CFR Part 60, Appendix A and 45CSR16 immediately before starting a surface monitoring survey.

7.8. Monitoring requirements.

7.8.a. To comply with paragraph 7.4.b.2 for an active gas collection system, the owner or operator shall install a sampling port and a thermometer, other temperature measuring device or an access port for temperature measurements at each wellhead and:

7.8.a.1. Measure the gauge pressure in the gas collection header monthly per paragraph 7.7.a.3; and

7.8.a.2. Monitor nitrogen or oxygen concentration in the landfill gas monthly as follows:

7.8.a.2.A. Determine the nitrogen level using Method 3C, unless the owner or operator

establishes an alternative test method as allowed by paragraph 7.9.d.2;

7.8.a.2.B. Determine the oxygen level using an oxygen meter using Method 3A, 3C or ASTM D6522-11 (if sample location is prior to combustion) unless the owner or operator establishes an alternative test method as allowed by paragraph 7.9.d.2, except that:

7.8.a.2.B.1. The span shall be set between ten percent and 12% oxygen;

7.8.a.2.B.2. A data recorder is not required;

7.8.a.2.B.3. Only two calibration gases are required, a zero and span;

7.8.a.2.B.4. A calibration error check is not required; and

7.8.a.2.B.5. The allowable sample bias, zero drift, and calibration drift are plus or minus 10 percent.

7.8.a.2.C. Use a portable gas composition analyzer to monitor the oxygen levels: provided, that:

7.8.a.2.C.1. The analyzer is calibrated; and

7.8.a.2.C.2. The analyzer meets all quality assurance and quality control requirements for Method 3A or ASTM D6522-11.

7.8.a.3. Monitor the temperature of the landfill gas on a monthly basis per paragraph 7.7.a.4, calibrating the temperature measuring device annually using the procedure in Section 10.3 of Method 2 of 40 CFR Part 60, Appendix A-1 and 45CSR16.

7.8.b. If the owner or operator seeks to comply with subdivision 7.4.c using an enclosed combustor, the owner or operator shall calibrate, maintain, and operate the following equipment according to the manufacturer's specifications:

7.8.b.1. A temperature monitoring device equipped with a continuous recorder and having a minimum accuracy of plus or minus one percent of the temperature being measured expressed in degrees Celsius or plus or minus 0.5 degrees Celsius, whichever is greater. A temperature monitoring device is not required for boilers or process heaters with design heat input capacity equal to or greater than 44 megawatts;

7.8.b.2. For a device that records flow to the control device and bypass of the control device (if applicable), the owner or operator shall:

7.8.b.2.A. Install, calibrate, and maintain a gas flow rate measuring device that records the flow to the control device at least every 15 minutes; and

7.8.b.2.B. Secure the bypass line valve in the closed position with a car-seal or a lock and key type configuration, performing a visual inspection of the seal or closure mechanism at least once every month to ensure that the valve is maintained in the closed position and the gas flow is not diverted through the bypass line.

7.8.c. If the owner or operator chooses to comply with subdivision 7.4.c using a non-enclosed flare, the owner or operator shall install, calibrate, maintain, and operate the following equipment according to the manufacturer's specifications:

7.8.c.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;

7.8.c.2. For a device that records flow to the flare and bypass of the flare (if applicable), the owner or operator shall:

7.8.c.2.A. Install, calibrate, and maintain a gas flow rate measuring device that records the flow to the control device at least every 15 minutes; and

7.8.c.2.B. Secure the bypass line valve in the closed position with a car-seal or a lock and key type configuration, performing a visual inspection of the seal or closure mechanism 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.

7.8.d. If the owner or operator chooses to comply with subdivision 7.4.c using a device other than a non-enclosed flare or an enclosed combustor or a treatment system, the owner or operator shall provide information per paragraph 7.9.d.2 to the Administrator that describes 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 the owner or operator submit additional information. The Administrator may specify additional appropriate monitoring procedures.

7.8.e. If the owner or operator chooses to install a collection system that does not meet the specifications of subdivision 7.5.a or seeks to monitor alternative parameters to those required by subdivisions 7.5.b, 7.6, 7.7, and 7.8, the owner or operator shall provide information satisfactory to the Administrator as provided in paragraphs 7.9.d.2 and 7.9.d.3 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.

7.8.f. To demonstrate compliance with the 500 ppm surface methane operational standard in paragraph 7.5.b.4, the owner or operator shall monitor surface concentrations of methane according to the requirements of subdivision 7.7.c and the instrument specifications of subdivision 7.7.d. The owner or operator may change to annual monitoring of any closed landfill that does not have monitor exceedances of the operational standard in three consecutive quarterly monitoring periods. If the owner or operator detects any methane reading of 500 ppm or more above background during the annual monitoring, the owner or operator shall resume quarterly monitoring.

7.8.g. To demonstrate compliance with the control system requirements in subdivision 7.4.c using a landfill gas treatment system, the owner or operator shall maintain and operate all monitoring systems associated with the treatment system according to the site-specific treatment system monitoring plan per subparagraph 7.10.b.5.B. The owner or operator shall calibrate, maintain, and operate a device that records flow to the treatment system and bypass of the treatment system, if applicable, according to the manufacturer's specifications by:

7.8.g.1. Installing, calibrating, and maintaining a gas flow rate measuring device that records the flow to the treatment system at least every 15 minutes; and

7.8.g.2. Securing the bypass line valve in the closed position with a car-seal or a lock and key type configuration, performing a visual inspection of the seal or closure mechanism 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.

7.8.h. The monitoring requirements of subdivisions 7.8.b, 7.8.c, 7.8.d, and 7.8.g apply at all times the affected source is operating, except for periods of monitoring system malfunctions, repairs

associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. The owner or operator is required to complete monitoring system repairs in response to monitoring system malfunctions and to return the monitoring system to operation as expeditiously as practicable.

7.9. Reporting requirements.

7.9.a. Design capacity report. -- The owner or operator shall submit the initial design capacity report no later than one year from the effective date of this rule. The initial design capacity report shall contain the following information:

7.9.a.1. 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; and

7.9.a.2. The maximum design capacity of the landfill. If the permit specifies the maximum design capacity, the owner or operator may submit a copy of the permit specifying the maximum design capacity as part of the report. If the permit does not specify the maximum design capacity of the landfill, the owner or operator shall calculate the maximum design capacity using good engineering practices. The owner or operator shall provide the calculations, along with the relevant parameters, as part of the report. The owner or operator may calculate design capacity in either megagrams or cubic meters for comparison with the exemption values. If the owner or operator chooses to convert the design capacity from volume to mass or from mass to volume to demonstrate the design capacity is less than 2.5 million megagrams or 2.5 million cubic meters, the calculation shall include a site-specific density, which the owner or operator shall recalculate annually. The owner or operator shall document any density conversions and submit them with the design capacity report. The Secretary may request other reasonable information as may be necessary to verify the maximum design capacity of the landfill.

7.9.b. Amended design capacity report. -- The owner or operator shall submit an amended design capacity report to provide notification of an increase of the landfill maximum design capacity within 90 days of a maximum design capacity that meets or exceeds 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 by subdivision 7.10.f.

7.9.c. NMOC emission rate report. -- For existing MSWLs with a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters, the owner or operator shall submit the NMOC emission rate report per paragraph 7.9.j.2 no later than one year from the effective date of this rule. The owner or operator shall submit the NMOC emission rate report to the Secretary annually per paragraph 7.9.j.2, except as provided for in paragraph 7.9.c.3. The Secretary may request additional information as may be necessary to verify the reported NMOC emission rate. The NMOC emission rate report shall:

7.9.c.1. Contain an annual or five-year estimate of the NMOC emission rate calculated using the formula and procedures in subdivisions 7.6.a or 7.6.b, as applicable; and

7.9.c.2. Include all the data, calculations, sample reports, and measurements used to estimate the annual or five year emissions.

7.9.c.3. The owner or operator may follow the requirements in paragraph 7.9.j.2 and submit an estimate of the NMOC emission rate for the next five-year period in lieu of the annual report if the estimated NMOC emission rate in the annual report is less than 34 megagrams per year in each of five consecutive years. This estimate shall include the current amount of solid waste in place and the

estimated waste acceptance rate for each year of the five years for which an NMOC emission rate is estimated. The owner or operator shall submit to the Secretary all data and calculations upon which it based this estimate. The owner or operator shall revise this estimate at least once every five years. If the actual waste acceptance rate exceeds the estimated waste acceptance rate in any year reported in the five year estimate, the owner or operator shall submit to the Secretary a revised five-year estimate, which shall cover the five-year period beginning with the year in which the actual waste acceptance rate exceeded the estimated waste acceptance rate.

7.9.c.4. The owner or operator is exempt from the requirement to submit an NMOC emission rate report after it installs a collection and control system that complies with subdivisions 7.4.b and 7.4.c during the time the collection and control system is in operation and complies with subdivision 7.5.b and subsection 7.7.

7.9.d. Collection and control system design plan. -- The owner or operator shall prepare the collection and control system design plan, which shall be approved by a professional engineer and shall meet the following requirements:

7.9.d.1. The collection and control system described in the design plan shall meet the design requirements of subdivisions 7.4.b and 7.4.c.;

7.9.d.2. 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 subdivision 7.5.b and subsections 7.6 through 7.10 proposed by the owner or operator;

7.9.d.3. The collection and control system design plan shall either conform to specifications for active collection systems in subdivision 7.5.a or include a demonstration of sufficiency for the alternative provisions to subdivision 7.5.a that is satisfactory to the Administrator;

7.9.d.4. Each owner or operator of a MSWL having a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters shall submit to the Secretary, within one year of the first NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year, a copy of the collection and control system design plan cover page that contains the professional engineer's seal, except as follows:

7.9.d.4.A. If the owner or operator elects to recalculate the NMOC emission rate after the Tier 2 NMOC sampling and analysis in paragraph 7.6.a.9 and the resulting rate is less than 34 megagrams per year, the owner or operator shall resume annual periodic reporting using the Tier 2 determined site-specific NMOC concentration, until the calculated NMOC emission rate is equal to or greater than 34 megagrams per year or the owner or operator closes the landfill. The owner or operator shall submit, per paragraph 7.9.j.2 and within 180 days of the first calculated exceedance of 34 megagrams per year, the revised NMOC emission rate report with the recalculated NMOC emission rate based on NMOC sampling and analysis.

7.9.d.4.B. If the owner or operator elects to recalculate the NMOC emission rate after determining a site-specific methane generation rate constant k, for Tier 3 per paragraph 7.6.a.9, and the resulting NMOC emission rate is less than 34 megagrams per year, the owner or operator shall resume annual periodic reporting. The owner or operator shall use the resulting site-specific methane generation rate constant k in the NMOC emission rate calculation until such time as the emissions rate calculation results in an exceedance. The owner or operator shall submit to the Secretary, per paragraph 7.9.j.2 and within one year of the first calculated NMOC emission rate equaling or exceeding 34 megagrams per year, the revised NMOC emission rate report based on the provisions of paragraph 7.6.a.9 and the resulting site specific methane generation rate constant k.

7.9.d.4.C. If the owner or operator elects to demonstrate that site-specific surface methane emissions are below 500 ppm methane, based on the provisions of paragraph 7.6.a.11, then the owner or operator shall annually submit a Tier 4 surface emissions report per paragraph 7.9.j.2 until the report shows a surface emissions reading of 500 ppm methane or greater. If the Tier 4 surface emissions report shows no surface emissions readings of 500 ppm methane or greater for four consecutive quarters at a closed landfill, then the owner or operator may reduce Tier 4 monitoring from a quarterly to an annual frequency. The Secretary may request additional information that may be necessary to verify the reported instantaneous surface emission readings. The Tier 4 surface emissions report shall clearly identify the location, date and time (to the nearest second), average wind speeds (including wind gusts), and reading (in ppm) of any value 500 ppm methane or greater, other than nonrepeatable, momentary readings. The owner or operator shall determine the latitude and longitude coordinates using an instrument with an accuracy of at least four meters for location, stating the coordinates in decimal degrees with at least five decimal places. The Tier 4 surface emission report shall also include the results of the most recent Tier 1 and Tier 2 results in order to verify that the landfill does not exceed 50 Mg/yr of NMOC.

7.9.d.4.C.1. The owner or operator shall submit the initial annual Tier 4 surface emissions report within 30 days of completing the fourth quarter of Tier 4 surface emissions monitoring that demonstrates that site specific surface methane emissions are below 500 ppm methane and following the procedure specified in paragraph 7.9.j.2 below; and

7.9.d.4.C.2. The owner or operator shall submit the Tier 4 surface emissions rate report within one year of the first measured surface exceedance of 500 ppm methane, following the procedure specified in paragraph 7.9.j.2 below.

7.9.d.4.D. If the landfill is in the closed landfill subcategory, the owner or operator shall submit a collection and control system design plan to the Secretary within one year of the first NMOC emission rate report in which the NMOC emission rate equals or exceeds 50 megagrams per year, except as follows:

7.9.d.4.D.1. If the owner or operator elects to recalculate the NMOC emission rate after the Tier 2 NMOC sampling and analysis under paragraph 7.6.a.7 and the resulting rate is less than 50 megagrams per year, the owner or operator shall resume annual periodic reporting using the Tier 2 determined site-specific NMOC concentration, until the calculated NMOC emission rate is equal to or greater than 50 megagrams per year or the owner or operator closes the landfill. The owner or operator shall submit the revised NMOC emission rate report, with the recalculated NMOC emission rate based on NMOC sampling and analysis, following the procedure specified in paragraph 7.9.j.2, within 180 days of the first calculated exceedance of 50 megagrams per year.

7.9.d.4.D.2. If the owner or operator elects to recalculate the NMOC emission rate after determining a site specific methane generation rate constant k for Tier 3 under paragraph 7.6.a.9, and the resulting NMOC emission rate is less than 50 megagrams per year, the owner or operator shall resume annual periodic reporting. The owner or operator shall use the resulting site specific methane generation rate constant k in the NMOC emission rate calculation until the emissions rate calculation results in an exceedance. The owner or operator shall submit the revised NMOC emission rate report per paragraph 7.6.a.9 and the resulting site-specific methane generation rate constant k, to the Secretary following the procedure specified in paragraph 7.9.j.2 within one year of the first calculated NMOC emission rate equaling or exceeding 50 megagrams per year.

7.9.d.4.D.3. If the owner or operator elects to demonstrate surface emissions are low, consistent with the provisions in subparagraph 7.9.d.4.C; and

7.9.d.4.D.4. The owner or operator has already submitted a gas collection and control system design plan consistent with the provisions of section 4 or section 6 of this rule.

7.9.d.5. The owner or operator shall notify the Secretary that the design plan is completed and submit a copy of the plan's signature page. The Secretary shall decide within 90 days whether the owner or operator should submit the design plan for review. If the Secretary chooses to review the plan, the approval process continues as described in paragraph 7.9.c.6. However, if the Secretary indicates that submission is not required or does not respond within 90 days, the owner or operator may continue to implement the plan with the recognition that it is proceeding at its own risk. If the Secretary requires the owner or operator to modify the design plan in order to obtain approval, the owner or operator shall take any steps necessary to conform any prior actions to the approved design plan, and the owner's or operator's failure to do so may result in an enforcement action by the Secretary.

7.9.d.6. Upon receipt of an initial or revised design plan, the Secretary shall review the information submitted under paragraphs 7.9.d.1 through 7.9.d.3 and either approve it, disapprove it or request that the owner or operator submit additional information. 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. If the Secretary 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 that it will be proceeding at its own risk.

7.9.d.7. If the owner or operator chooses to demonstrate compliance with the emission control requirements using a treatment system, then the owner or operator shall prepare a site-specific treatment system monitoring plan as specified in paragraph 7.10.b.5 below.

7.9.e. Revised design plan. -- If the owner or operator is required to submit a design plan under subdivision 7.9.d or sections 4 or 6, the owner or operator shall submit a revised design plan to the Secretary for approval as follows:

7.9.e.1. At least 90 days before expanding operations to an area not covered by the previously approved design plan; or

7.9.e.2. Prior to installing or expanding the gas collection system in a way that is not consistent with the design plan submitted to the Secretary per subdivision 7.9.d.

7.9.f. Closure report. -- The owner or operator shall submit a closure report to the Secretary within 30 days of ceasing waste acceptance. The Secretary may request additional information as may be necessary to verify that permanent closure has taken place per the requirements of 40 CFR § 258.60. If the owner or operator has submitted a closure report to the Secretary, the owner or operator may not place any additional wastes into the landfill without filing a notification of modification as described under 40 CFR § 60.7(a)(4).

7.9.g. Equipment removal report. -- The owner or operator shall submit an equipment removal report to the Secretary 30 days prior to removal or cessation of operation of the control equipment, which report shall contain the following:

7.9.g.1. A copy of the closure report submitted per subdivision 7.9.f. and:

7.9.g.2. A copy of the initial performance test report demonstrating that the 15-year minimum control period has expired, unless the performance test results report has been submitted to the EPA via the EPA's CDX or information that demonstrates that the gas collection and control system will be unable to operate for 15 years due to declining gas flows; or, in lieu thereof, a report stating the process unit(s) tested, the pollutant(s) tested, and the date that the performance test was conducted, if the owner or operator previously submitted this report to the EPA's CDX; and

7.9.g.3. Dated copies of three successive NMOC emission rate reports demonstrating the landfill is no longer producing 34 megagrams or greater of NMOC per year, unless the owner or operator submitted the NMOC emission rate reports to the EPA via the EPA's CDX; or, in lieu thereof, if the owner or operator has previously submitted the NMOC emission rate reports to the EPA's CDX, a statement that the owner or operator submitted the NMOC emission rate reports electronically, along with the dates that the reports were submitted; or

7.9.g.4. For the closed landfill subcategory, 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; or, in lieu thereof, a statement that the owner or operator submitted the NMOC emission rate reports electronically to EPA's CDX, along with the dates that the owner or operator electronically submitted the reports.

7.9.g.5. The Secretary may request additional information as may be necessary to verify that the owner or operator has met all of the conditions for removal under subdivision 7.4.f.

7.9.h. Annual report. -- If the owner or operator chooses to comply with paragraph 7.4.e.2 using an active collection system designed per subdivision 7.4.b, the owner or operator shall submit an annual report to the Secretary according to paragraph 7.9.j.2, containing the information listed in paragraphs 7.9.h.1 through 7.9.h.7. The owner or operator shall submit the initial annual report within 180 days of installation and startup of the collection and control system. The initial annual report shall include the initial performance test report required under 40 CFR § 60.8, as applicable, unless the performance test results report has been submitted to the EPA via the EPA's CDX, in which case, the owner or operator may submit, in lieu thereof, a statement that the owner or operator electronically filed the performance test report, the process unit(s) tested, the pollutant(s) tested, and the date that the owner or operator conducted the performance test. The owner or operator shall submit the initial performance test report per paragraph 7.9.j.1 before the date it submits the initial annual report. For enclosed combustion devices and flares, reportable exceedances are defined under paragraph 7.10.c.1. The annual report shall contain:

7.9.h.1. The value and length of time for exceedance of applicable parameters monitored under paragraph 7.8.a.1 and subdivisions 7.8.b, 7.8.c, 7.8.d, and 7.8.g;

7.9.h.2. A description and duration of all periods when the gas stream was diverted from the control device or treatment system through a bypass line or the indication of bypass flow as specified in section 7.8;

7.9.h.3. A description and duration of all periods when the control device or treatment system was not operating and length of time the control device or treatment system was not operating;

7.9.h.4. All periods when the collection system was not operating;

7.9.h.5. The location of each exceedance of the 500 ppm methane concentration per subdivision 7.5.b.4 and the concentration recorded at each location for which an exceedance was recorded in the previous month, determining the latitude and longitude coordinates using an instrument with an accuracy of at least four meters for the location, which coordinates shall be in decimal degrees with at least five decimal places;

7.9.h.6. The date of installation and the location of each well or collection system expansion added pursuant to 7.7.a.3, 7.7.a.4, 7.7.b, and 7.7.c.4; and

7.9.h.7. For any corrective action analysis for which corrective actions are required by 7.7.a.3 or 7.7.a.4 and that take more than 60 days to correct the exceedance, the root cause analysis conducted, including a description of the recommended corrective action(s), the date for corrective

action(s) already completed following the positive pressure reading, and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates.

7.9.i. Initial performance test report. -- To comply with subdivision 7.4.c, the owner or operator shall include the following information with the initial performance test report required under 40 CFR § 60.8 and 45CSR16:

7.9.i.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;

7.9.i.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;

7.9.i.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;

7.9.i.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;

7.9.i.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

7.9.i.6. The provisions for the control of off-site migration.

7.9.j. Electronic reporting. -- The owner or operator shall submit reports electronically according to the following:

7.9.j.1. Within 60 days after the date of completing each performance test (as defined in 40 CFR § 60.8), the owner or operator shall submit the results of each performance test according to the following procedures:

7.9.j.1.A. For data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT website at the time of the test, the owner or operator shall submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI), which can be accessed through EPA's Central Data Exchange (CDX). The owner or operator shall submit performance test data in a file format generated through the use of the EPA's ERT or an alternative file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT website, once the XML schema is available. If the owner or operator claims that some of the performance test information being submitted is confidential business information (CBI), the owner or operator shall submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website, including information claimed to be CBI, on a compact disc, flash drive or other commonly used electronic storage media to the EPA. The owner or operator shall clearly mark electronic media shall be clearly marked as CBI and mailed to the EPA at the address listed on EPA's ERT website. The owner or operator shall submit the same ERT or alternate file with the CBI omitted to the EPA via the EPA's CDX as described earlier in this subparagraph.

7.9.j.1.B. For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT website at the time of the test, the owner or operator shall submit the results of the performance test to the Administrator at the appropriate address listed in 40 CFR § 60.4.

7.9.j.2. Each owner or operator required to submit reports following the procedure specified in this paragraph shall submit reports to the EPA via the CEDRI, which can be accessed through the EPA's CDX. The owner or operator shall use the appropriate electronic report in CEDRI for this submission or an alternate electronic file format consistent with the XML schema listed on the CEDRI website. If the specific reporting form is not available in CEDRI at the time that the report is due, the owner or operator shall submit the report to the Administrator at the appropriate address listed in 40 CFR § 60.4. Once the form has been available in CEDRI for 90 calendar days, the owner or operator shall submit all subsequent reports via CEDRI. The owner or operator shall submit the reports by the deadlines specified in section 7, regardless of the method of submittal.

7.9.k. Corrective action and the corresponding timeline. -- The owner or operator shall submit the following:

7.9.k.1. For corrective action that is required by subparagraph 7.7.a.3.C or 7.7.a.4.C and that is expected to take longer to complete than 120 days after the initial exceedance, the owner or operator shall submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the Secretary as soon as practicable but no later than 75 days after the first measurement of positive pressure or temperature monitoring value of 55 degrees Celsius (131 degrees Fahrenheit) or above. The Secretary shall approve the plan for corrective action and the corresponding timeline.

7.9.k.2. For corrective action that is required by subparagraph 7.7.a.3.C or 7.7.a.4.C and that is not completed within 60 days after the initial exceedance, the owner or operator shall submit a notification to the Secretary as soon as practicable but no later than 75 days after the first measurement of positive pressure or temperature exceedance.

7.9.l. Liquids addition. -- The owner or operator of an affected landfill with a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters that has employed leachate recirculation or added liquids based on a Research, Development, and Demonstration permit (issued through Resource Conservation and Recovery Act, subtitle D, part 258) within the last ten years shall annually submit to the Secretary, per paragraph 7.9.j.2, the following information:

7.9.l.1. Volume of leachate recirculated (gallons per year) and the reported basis of those estimates (records or engineering estimates);

7.9.l.2. Total volume of all other liquids added (gallons per year) and the reported basis of those estimates (records or engineering estimates);

7.9.l.3. Surface area (acres) over which the leachate is recirculated (or otherwise applied);

7.9.l.4. Surface area (acres) over which any other liquids are applied;

7.9.l.5. The total waste disposed (megagrams) in the areas with recirculated leachate and/or added liquids based on on-site records, to the extent data are available, or engineering estimates and the reported basis of those estimates; and

7.9.l.6. The annual waste acceptance rates (megagrams per year) in the areas with recirculated leachate and/or added liquids based on on-site records, to the extent data are available, or engineering estimates.

7.9.l.7. The initial report shall contain items in paragraphs 7.9.l.1 through 7.9.l.6 on an annual basis for the most recent 365 days, as well as for each of the previous ten years, to the extent historical data are available in on-site records, which report shall be submitted no later than:

7.9.1.7.A. September 27, 2017 for landfills that commenced construction, modification or reconstruction after July 17, 2014 but before August 29, 2016; or

7.9.1.7.B. One year (365 days) after the date of commenced construction, modification or reconstruction for landfills that commence construction, modification or reconstruction after August 29, 2016.

7.9.1.8. Subsequent annual reports shall contain items in 7.9.1.1 through 7.9.1.6 for the annual (365 days) period following the period included in the previous annual report (365 days), which report shall be submitted no later than 365 days after the date the previous report was submitted.

7.9.1.9. Landfills in the closed landfill subcategory are exempt from the reporting requirements contained in paragraphs 7.9.1.1 through 7.9.1.7.

7.9.1.10. The owner or operator may cease annual reporting of items in paragraphs 7.9.1.1 through 7.9.1.6 after the owner or operator has submitted the closure report per subdivision 7.9.f.

7.9.m. Tier 4 notification.

7.9.m.1. The owner or operator of an affected landfill with a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters shall provide a notification of the date(s) the owner or operator intends to demonstrate site specific surface methane emissions are below 500 ppm methane, based on the Tier 4 provisions of paragraph 7.6.a.11. The owner or operator shall also include a description in the notification of the wind barrier to be used during the surface emission monitoring. Notification shall be postmarked not less than 30 days prior to the Tier 4 surface emission monitor date.

7.9.m.2. If there is a delay to the scheduled Tier 4 surface emission monitor date due to weather conditions, including not meeting the wind requirements of part 7.6.a.11.E.1, the owner or operator shall notify the Secretary by email or telephone no later than 48 hours before any known delay in the original test date and arrange with the Secretary a mutually agreeable new test date.

7.10. Recordkeeping requirements.

7.10.a. Except as provided in paragraph 7.9.d.2, each owner or operator of an MSWL subject to the provisions of subdivision 7.4.e shall keep on-site records of the design capacity report that triggered subdivision 7.4.f, the current amount of solid waste in place, and the year-by-year waste acceptance rate for at least five years up-to-date, readily accessible. The owner or operator may maintain off-site records if they are retrievable within four hours. Either paper copy or electronic formats are acceptable.

7.10.b. Except as provided in paragraph 7.9.d.2, the owner or operator shall keep up-to-date, readily accessible records of the data listed in paragraphs 7.10.b.1 through 7.10.b.5 below, as measured during the initial performance test or compliance determination, for the life of the control system equipment. The owner or operator shall maintain records of subsequent tests or monitoring for a minimum of five years and records of the control device vendor specifications the control device is removed.

7.10.b.1. To demonstrate compliance with the collection system requirements of subdivision 7.4.b, the owner or operator shall keep a record of:

7.10.b.1.A. The maximum expected gas generation flow rate as calculated in paragraph 7.7.a.1. If the Administrator approved another method to determine the maximum gas generation flow rate, the owner or operator may use the other method; and

7.10.b.1.B. The density of wells, horizontal collectors, surface collectors or other gas

extraction devices determined per subparagraph 7.5.a.1.A.

7.10.b.2. To demonstrate compliance with the control system requirements of subdivision 7.4.c through the use of an enclosed combustion device other than a boiler or process heater with a design heat input capacity equal to or greater than 44 megawatts, the owner or operator shall keep a record of:

7.10.b.2.A. The average temperature measured at least every 15 minutes and averaged over the same time period of the performance test; and

7.10.b.2.B. The percent reduction of NMOC achieved by the control device determined per paragraph 7.4.c.2.

7.10.b.3. To demonstrate compliance with paragraph 7.4.c.1 through the use of a non-enclosed flare, the owner or operator shall keep a record of the flare type (i.e., steam assisted, air-assisted or non-assisted), 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 40 CFR § 60.18, as well as continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations during which the pilot flame or the flare flame is absent.

7.10.b.4. To demonstrate compliance with subparagraph 7.4.c.2.A through the use of a boiler or process heater of any size the owner or operator shall keep a record including a description of the location where the collected gas vent stream is introduced into the boiler or process heater over the same time period of the performance testing.

7.10.b.5. To demonstrate compliance with paragraph 7.4.c.3 through the use of a landfill gas treatment system the owner or operator shall keep:

7.10.b.5.A. Bypass records. -- Records of the flow of landfill gas to, and bypass of, the treatment system; and

7.10.b.5.B. A site specific treatment monitoring plan, to include:

7.10.b.5.B.1. Monitoring records of parameters identified in the treatment system monitoring plan and that ensure the treatment system is operating properly for each intended end use of the treated landfill gas. At a minimum, the owner or operator shall include records of filtration, de-watering, and compression parameters that ensure the treatment system is operating properly for each intended end use of the treated landfill gas;

7.10.b.5.B.2. Monitoring methods, frequencies, and operating ranges for each monitored operating parameter based on manufacturer's recommendations or engineering analysis for each intended end use of the treated landfill gas;

7.10.b.5.B.3. Documentation of the monitoring methods and ranges, along with justification for their use;

7.10.b.5.B.4. Identification of who is responsible (by job title) for data collection;

7.10.b.5.B.5. Documentation of processes and methods used to collect the necessary data; and

7.10.b.5.B.6. Description of the procedures and methods that are used for quality assurance, maintenance, and repair of all continuous monitoring systems.

7.10.c. Except as provided in paragraph 7.9.d.2, the owner or operator shall keep for five years

up-to-date, readily accessible, continuous records of the equipment operating parameters required by section 7.8, 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.

7.10.c.1. The following constitute exceedances that the owner or operator shall record and report under section 7.9:

7.10.c.1.A. For enclosed combustors, except for boilers and process heaters with design heat input capacity greater than 44 megawatts (150 million British thermal unit per hour), all three-hour periods of operation that the average temperature was more than 28 degrees Celsius (82 degrees Fahrenheit) below the average combustion temperature that the owner or operator determined compliance with subdivision 7.4.c during the most recent performance test; and

7.10.c.1.B. For boilers or process heaters, whenever there is a change in the location where the vent stream is introduced into the flame zone per paragraph 7.10.b.3.

7.10.c.2. The owner or operator shall keep up-to-date, readily accessible, continuous records of the indication of flow to the control system and the indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines, per section 7.8.

7.10.c.3. If the owner or operator uses a boiler or process heater with a design heat input capacity greater than 44 megawatts to comply with subdivision 7.4.c, the owner or operator shall keep an up-to-date, readily accessible record of all periods of operation of the boiler or process heater (e.g. records of steam use, fuel use or monitoring data collected pursuant to other State, local, tribal or federal regulatory requirements).

7.10.c.4. Each owner or operator seeking to comply with the provisions of section 7 by use of a non-enclosed flare shall keep up-to-date, readily accessible, continuous records of the flame or flare pilot flame monitoring required by subdivision 7.8.c, and up-to-date, readily accessible records of all periods of operation in which the flame or flare pilot flame is absent.

7.10.c.5. Each owner or operator seeking to comply with subdivision 7.4.e using an active collection system designed per subdivision 7.4.b, shall keep records of periods when the collection system or control device is not operating.

7.10.d. The owner or operator shall keep an up-to-date, readily accessible plot map showing each existing and planned collector in the system and providing a unique identification location label on each collector that matches the labeling on the plot map for the life of the collection system, except as provided in paragraph 7.9.d.2. below. The owner or operator shall keep:

7.10.d.1. Up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified under subdivision 7.7.b.; and

7.10.d.2. Readily accessible documentation of the nature, date of deposition, amount, and location of asbestos containing or nondegradable waste excluded from collection under part 7.5.a.1.C.1 and any nonproductive areas excluded from collection under part 7.5.a.1.C.2.

7.10.e. The owner or operator shall keep up-to-date, readily accessible records of the following, except as provided in paragraph 7.9.d.2, for a minimum of five years:

7.10.e.1. All collection and control system exceedances of the operational standards in subdivision 7.5.b, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance;

7.10.e.2. Each wellhead temperature monitoring value of 55 degrees Celsius (131 degrees Fahrenheit) or above, each wellhead nitrogen level at or above 20%, and each wellhead oxygen level at or above five percent;

7.10.e.3. The root cause analysis conducted, including a description of the recommended corrective action(s) taken and the date(s) the corrective action(s) were completed, for which corrective actions are required by paragraphs 7.7.a.3 or 7.7.a.4;

7.10.e.4. The root cause analysis conducted, the corrective action analysis, the date for corrective action(s) already completed following the positive pressure reading or high temperature reading, and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates, for which corrective actions are required by subparagraphs 7.7.a.3.B or 7.7.a.4.B; and

7.10.e.5. The root cause analysis conducted, the corrective action analysis, the date for corrective action(s) already completed following the positive pressure reading or high temperature reading, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates, and a copy of any comments or final approval on the corrective action analysis or schedule from the Secretary for any root cause analysis for which corrective actions are required by subparagraphs 7.7.a.3.C or 7.7.4.C.

7.10.f. Landfill owners or operators who convert design capacity from volume to mass or mass to volume to demonstrate that the landfill design capacity is less than 2.5 million megagrams or 2.5 million cubic meters shall keep readily accessible, on-site records of the annual recalculation of site specific density, design capacity, and the supporting documentation. The owner or operator may maintain records off site if they are retrievable within four hours. Either paper copy or electronic formats are acceptable.

7.10.g. To demonstrate that site-specific surface methane emissions are below 500 ppm by conducting surface emission monitoring under the Tier 4 procedures specified in paragraph 7.6.a.11, the owner or operator shall keep for a minimum of five years up-to-date, readily accessible records of all surface emissions monitoring and information related to monitoring instrument calibrations conducted per Sections 8 and 10 of 40 CFR Part 60, Appendix A and 45CSR16 including all of the following items:

7.10.g.1. Calibration records:

7.10.g.1.A. Date of calibration and initials of operator performing the calibration;

7.10.g.1.B. Calibration gas cylinder identification, certification date, and certified concentration;

7.10.g.1.C. Instrument scale(s) used;

7.10.g.1.D. A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value; and

7.10.g.1.E. If the owner or operator makes its own calibration gas, a description of the procedure used.

7.10.g.2. Digital photographs of the instrument setup. -- For the duration of the Tier 4 monitoring demonstration, the owner or operator shall take time and date stamped digital photographs prior to sampling at the first sampling location and at the last sampling location after sampling at the end of each sampling day;

7.10.g.3. Time stamp of each surface scan reading:

7.10.g.3.A. The time stamp should be detailed to the nearest second, based on when the sample collection begins; and

7.10.g.3.B. A log for the length of time each sample was taken using a stopwatch (e.g., the time the probe was held over the area).

7.10.g.4. Location of each surface scan reading. – The owner or operator shall determine the coordinates using an instrument with an accuracy of at least four meters, which coordinates shall be in decimal degrees with at least five decimal places;

7.10.g.5. Monitored methane concentration (ppm) of each reading;

7.10.g.6. Background methane concentration (ppm) after each instrument calibration test;

7.10.g.7. Adjusted methane concentration using most recent calibration (ppm);

7.10.g.8. For readings taken at each surface penetration, the unique identification location label matching the label specified in subdivision 7.10.d; and

7.10.g.9. Records of the operating hours of the gas collection system for each destruction device.

7.10.h. The owner or operator shall keep up-to-date, readily accessible records of all collection and control system monitoring data for parameters measured in paragraphs 7.8.a.1, 7.8.a.2, and 7.8.a.3 for a minimum of five years, except as provided in paragraph 7.9.d.2.

7.10.i. The owner or operator may maintain in electronic format any documents required to be maintained by section 7 that it submitted electronically via EPA's CDX.

7.10.j. If the owner or operator reports leachate or other liquids addition under subdivision 7.9.l, the owner or operator shall keep records of any engineering calculations or company records used to estimate the quantities of leachate or liquids added, the surface areas for which the leachate or liquids were applied, and the estimates of annual waste acceptance or total waste in place in the areas where the owner or operator applied leachate or liquids.

§45-23-8. Secretary.

8.1. All references in 40 CFR Part 60 Subparts Cf and XXX to the "Administrator" are amended to be the "Secretary" except in the following references, which shall remain "Administrator":

8.1.a. Where the Federal Regulations specifically provide that the Administrator shall retain authority and not transfer such authority to the Secretary;

8.1.b. Where provisions occur which refer to:

8.1.b.1. Alternate means of emission limitations;

8.1.b.2. Alternate control technologies;

8.1.b.3. Innovative technology waivers;

8.1.b.4. Alternate test methods;

8.1.b.5. Alternate monitoring methods;

8.1.b.6. Waivers/adjustments to recordkeeping and reporting;

8.1.b.7. Applicability determinations; or

8.1.b.8. The requirements of 40 CFR § 60.764(a)(5) to approve other methods to determine the NMOC concentration or a site specific methane generation rate constant as an alternative to the methods required by 40 CFR § 60.764(a)(3) and (4); and

8.1.c. Where the context of the regulation clearly requires otherwise.

§45-23-9. Inconsistency Between Rules.

9.1. In the event of any inconsistency between this rule and any other rule of the Division of Air Quality, the inconsistency shall be resolved by the determination of the Secretary, and the determination shall be based upon the application of the more stringent provision, term, condition, method or rule.

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APPENDIX B
PUBLIC PARTICIPATION

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Public Hearing Certification

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west virginia department of environmental protection

Executive Office
601 57th Street, SE
Charleston, WV 25304

Austin Caperton, Cabinet Secretary
dep.wv.gov

September 13, 2018

Mr. Cosmo Servidio (3RA00)
Regional Administrator
U.S. Environmental Protection Agency
Region 3
1650 Arch Street
Philadelphia, PA 19103-2029

Re: West Virginia State Plan Revision for the Control of Air Pollution from Municipal Solid Waste Landfills

Dear Administrator Servidio:

On behalf of the State of West Virginia, I am herein submitting for approval a revision to the West Virginia State Plan for the Control of Air Pollution from Municipal Solid Waste (MSW) Landfills. This revision to the State Plan is being submitted to fulfill the State's obligations under the Clean Air Act, as amended (CAA). Section 111(d)(1) of the CAA requires each state submit to EPA a plan which establishes standards of performance for any existing source in response to the issuance of Emission Guidelines by EPA and provide for the implementation and enforcement of such standards.

In this revision to the State Plan, West Virginia demonstrates that the State Plan is as protective as the emission guidelines promulgated by EPA. Included with this submittal is an electronic copy on compact disk in searchable PDF format. We certify that the enclosed electronic copy includes an exact duplicate of information contained in the hardcopy submission.

The last revision to Series 23 of Title 45 of the West Virginia Code of State Rules (45 C.S.R. 23), *Control of Air Pollution from Municipal Solid Waste Landfills*, became effective June 1, 2018. The state rule was revised in response to the EPA final rules *Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills* under 40 C.F.R. 60, Subpart Cf [81 Fed. Reg. 59276, August 29, 2016] and *Standards of Performance for Municipal Solid Waste Landfills* under 40 C.F. R 60, Subpart XXX [81 Fed. Reg. 59332, August 29, 2016].

I certify that the public notice and public hearing regarding the CAA § 111(d) *West Virginia State Plan Revision for the Control of Air Pollution from Municipal Solid Waste Landfills* was

held in accordance with criteria specified in 40 CFR §60.23(d). I further certify that the list of attendees, public hearing transcript, summary of received public comments, and response to comment document are included as Appendix B of the revised State Plan.

Pursuant to the final rule published at 49 Fed. Reg. 48692 [14 DEC 1984] that granted delegation of the NSPS program to West Virginia, I am also providing notification that 45 C.S.R. 23 legally adopts 40 C.F.R. 60, Subparts XXX (Standards of Performance for Municipal Solid Waste Landfills), as of June 1, 2017 except as identified in § 45-23-8. The Division of Air Quality (DAQ) intends to enforce the adopted standards in conformance with the terms of EPA's delegation of authority letter dated March 19, 2001. We understand that in accordance with EPA's delegation agreement letters, new or revised NSPS's are "automatically" delegated at the time the State legally adopts such standards, and upon receipt of notice herein.

If you or your staff have any questions concerning this submittal, please contact William F. Durham, Director of the Division of Air Quality at (304) 926-0462.

Sincerely,

Austin Caperton
Cabinet Secretary

AC/lmj
Enclosures

cc: William F. Durham, DAQ
Cristina Fernandez, USEPA/
Mike Gordon, USEPA/3AP10

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Public Notice

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Proposed Revision to the West Virginia Section 111(d) State Plan
Control of Air Pollution from Municipal Solid Waste Landfills

Notice of Public Hearing and Public Comment Period

The West Virginia Department of Environmental Protection (DEP), Division of Air Quality (DAQ) is revising the Clean Air Act § 111(d) State Plan for the Control of Air Pollution from Municipal Solid Waste (MSW) Landfills. This plan revision incorporates changes made to rule 45 C.S.R. 23 - "Control of Air Pollution from Municipal Solid Waste Landfills". This rule change requires DAQ to submit a State Plan revision for MSW landfills and conduct a public hearing.

DAQ will hold a public hearing on Monday, August 20, 2018 beginning at 5:30 p.m. on a proposed revised State Plan to implement Emission Guidelines for MSW landfills.

The public hearing is being held to satisfy the requirements for submitting a revised § 111(d) State Plan. The revised plan will be submitted to the United States Environmental Protection Agency (USEPA) and supplemented by legislative rule 45 C.S.R. 23 - "Control of Air Pollution from Municipal Solid Waste Landfills," which became effective June 1, 2018. This rule gives West Virginia regulatory authority to adopt, implement and enforce the Emission Guidelines requirements for existing MSW landfills and the New Source Performance Standards for new facilities, either directly through administrative action requiring compliance with 45 C.S.R. 23, or by including such requirements in State permits, where applicable.

The public hearing will be held in the Dolly Sods conference room #1125, at the DEP Charleston headquarters located at 601 57th Street SE, Charleston, West Virginia 25304. Written and oral comments will be accepted until the close of the hearing on August 20, 2018. Comments will also be accepted by e-mail if transmitted by 5:30 p.m. on August 20, 2018 to richard.a.boehm@wv.gov . Written comments may also be submitted at the following address:

William F. Durham, Director
Division of Air Quality
601 57th Street, SE
Charleston, WV 25304

Comments submitted by mail must be postmarked by August 20, 2018. Copies of the proposed revised State Plan will be available for public review on or before August 20, 2018, at the Department of Environmental Protection, Division of Air Quality's Charleston office at the above address, or on the website at http://www.dep.wv.gov/daq/publicnoticeandcomment/Pages/default.aspx. Appendices to the Plan will be available upon request.

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			TOTAL INVOICE AMOUNT					84.00

State of West Virginia, **AFFIDAVIT OF PUBLICATION**

I, _____ of

CHARLESTON GAZETTE MAIL,
do solemnly swear that the legal notice of:
Proposed Revision WV Sec
was duly published in said newspaper(s) at the stated price for the respective newspaper(s) and during the dates listed below:
07/20/18-07/20/18

OFFICIAL SEAL
Vanessa Adams-Wandling
Notary Public
State of West Virginia
My Commission Expires
November 04, 2021
121 SHALE DR.
CHARLESTON, WV 25312

Subscribed and sworn to before me this 24th day of July 2018.

Notary Public of Kanawha County, West Virginia

whose address is PO Box 4512, Charleston, WV 25364 an answer, including any related counter claim or defense you may have to the petition filed in this action on or before August 19, 2018. If you fail to do so, thereafter, upon proper hearing, Petitioners will be granted relief demanded in their Petition being appointed Guardians of said Infant.

A copy of said Petition can be obtained from the undersigned Clerk at her office.

Entered by the Clerk of Said Court July 17, 2018.

Cathy S. Gatson
Clerk of Court
(685926)

PUBLIC SERVICE COMMISSION OF WEST VIRGINIA CHARLESTON

Entered by the Public Service Commission of West Virginia, in the City of Charleston on this the 9th day of May 2018.

Case No. 18-0895-T-CN
ExteNet Systems, Inc. Application for a certificate of convenience and necessity to provide facilities-based and resold competitive local exchange, exchange access, interexchange and related retail and wholesale telecommunications services throughout the State of West Virginia.

NOTICE OF FILING

On June 19, 2018, ExteNet Systems, Inc. filed an application for a certificate of convenience and necessity to provide facilities-based and resold competitive local exchange, exchange access, interexchange and related retail and wholesale telecommunications services throughout the State of West Virginia.

Pursuant to West Virginia Code §24-2-11, IT IS ORDERED that the Applicant give notice of the filing of said application by publishing a copy of this order once in a qualified newspaper as provided in West Virginia Code §59-3-1 et seq, published and of general circulation in each of the Cities of Beckley, Bluefield, Charleston, Clarksburg, Elkins, Fairmont, Huntington, Keyser, Lewisburg, Logan, Martinsburg, Morgantown, Moundsville, Parkersburg, Point Pleasant, Weirton, Welch, Wheeling, and Williamson, making due return to this Commission of proper certification of publication immediately after publication. Anyone desiring to make objection to said application must do so in writing, within 30 days after publication of this notice, to Ingrid Ferrell, Executive Secretary, Public Service Commission, P.O. Box 812, Charleston, West Virginia 25323.

IT IS FURTHER ORDERED that if no protests are received within said thirty-day period, the Commission may waive formal hearing render its decision based on the evidence submitted with the application and the Commission's review thereof.

A True Copy, Teste,

Ingrid Ferrell,
Executive Secretary
(685924)

amount of the bid will be required to receive a contract for this work. The bidder must include a Certification of Compliance for payment of West Virginia Workers' Compensation with the submitted bid. Bid bonding will not be required for this project, but bidders are cautioned to check their capability for performance bonding prior to preparing a bid for this work.

Sealed bids will be accepted at the Administrative Office of Cabin Creek Health Systems at 104 Alex Lane, Charleston, West Virginia 25314, until August 14, 2018 at 10:00 AM, local prevailing time. After that time, and on that date, the bids will be opened by the Architect and read aloud. It is the bidder's responsibility to have their bid physically in the Administrative Office of the Cabin Creek Health Systems, prior to the deadline for receipt. Faxed bids will not be accepted. Unsealed bids will not be accepted. Bids received after the deadline, for any reason, will not be accepted. A mandatory pre-bid meeting will be held on July 31, 2018 at 1:00 PM, local prevailing time, at the Administrative Offices of Cabin Creek Health Systems,104 Alex Lane, Charleston, West Virginia 25314. A sign-in of potential bidders attending will be required, and bids will not be accepted from firms who do not sign in and attend this mandatory pre-bid meeting. Government issued photo identification, such as a valid driver's license, or equivalent photo-identification, will be required for sign-in of each potential bidder's attendance, and the attendee signing to represent a potential bidder must be an employee or officer of that firm which will be bidding, at the time of the pre-bid meeting. Potential bidders are urged to completely review the project bid documents prior to the mandatory pre-bid meeting.

Project Bid Documents (plans with specifications and bidding forms) are available, to qualified bidders, at Charleston Blueprint, 1203 Virginia Street, East, Charleston, West Virginia 25301, phone: 304-343-1063, for a non-refundable cost of $25.00, plus any shipping costs. Only full sets will be issued. Project documents may be examined free of charge, during regular weekday business hours at the Administrative Office of Cabin Creek Health Systems, 104 Alex Lane, Charleston, West Virginia 25314, phone: 304-734-2040.

End of Advertisement for Bids - Interior Renovations for Cabin Creek Health Systems

(685784)

NOTICE OF TRUSTEE'S SALE

NOTICE OF TRUSTEE'S SALE is hereby given pursuant to and by virtue of the authority vested in the Substitute Trustee, WV Trustee Services, LLC, by that certain Deed of Trust dated July 14, 2005, executed by Borrower(s), Darren R Johnson, to Richard A. Pill, the Trustee of record in the office of the Clerk of the County Commission of Kanawha County, West Virginia, in Book 3263, at Page 378. At the time of the execution of the Deed to be recorded in the Office of the Clerk of the County Commission of Kanawha County, West Virginia, simultaneously herewith as part of this transaction.

Being the same property conveyed to Darren R Johnson by the Deed dated July 14, 2005 and recorded in Deed Book 2635 at Page 871 in the Office of the Clerk of the County Commission of Kanawha County, West Virginia.

TERMS OF SALE:

1) The property will be conveyed in an "AS IS" physical condition by Deed containing no warranty, express or implied, subject to the Internal Revenue Service right of redemption, all property taxes, prior Deeds, liens, reservations, encumbrances, restrictions, rights-of-ways, easements, covenants, conveyances and conditions of record in the Clerk's office or affecting the subject property.

2) The Purchaser shall be responsible for the payment of the transfer taxes imposed by the West Virginia Code § 11-22-1.

3) The Beneficiary and/or the Servicer of the Deed of Trust and Note reserve the right to submit a bid for the property at sale.

4) The Trustee reserves the right to continue sale of the subject property from time to time by written or oral proclamation, which continuance shall be in the sole discretion of the Trustee.

5) The Trustee shall be under no duty to cause any existing tenant or person occupying the property to vacate said property, and any personal property and /or belongings remaining at the property after the foreclosure sale will be deemed to constitute ABANDONED PROPERTY AND WILL BE DISPOSED OF ACCORDINGLY.

6) The total purchase price is payable to the Trustee within thirty (30) days of the date of sale, with ten (10%) of the total purchase price payable to the Trustee at sale.

WV Trustee Services,
LLC, Substitute Trustee

BY:
Dionne Reynolds,
Limited Signing Officer
WV Trustee Services,
LLC
McGuire Office Center
618 Tenth Street
Suite 108
Huntington, WV 25701
(304) 853-3336
dionne.reynolds@
wvtrusteeservices.com
(685293)

NOTICE OF TRUSTEE'S SALE

Pursuant to the authority vested in the undersigned J. Patrick Jones, Substitute Trustee by Notice of Substitution of Trustee which notice is of record in the Office of the Clerk of the County of Commission of Kanawha West Virginia and by Deed of Trust dated February 25, 2008, executed by Adah M. Aston to Richard A. Pill, Trustee, which deed of trust is of record in the Office of the Clerk of Kanawha County, West Virginia, in Trust Deed Book 3545 at Page 947, the undersigned Substitute Trustee has been requested, in writing, by the beneficiary of said deed of trust to sell the real estate described below, as there has been a default

3. The purchaser shall be responsible for the payment of the transfer taxes imposed by West Virginia Code § 11-22-2.

4. The subject property will be sold in "AS IS" condition. The Substitute Trustee makes no representations and warranties of any kind or character including, but not limited to, the condition of the real estate or the title to the real estate to be conveyed.

5. The Substitute Trustees shall be under no duty to cause any existing tenant or person occupying the subject property to vacate said property.

6. The Substitute Trustee reserves the right to adjourn the sale, for a time, or from time to time, without further notice by announcement at the time and place of the sale described above.

7. The beneficiary of the Deed of Trust and holder of the note thereby secured reserves the right to submit a bid for the property at the sale, which bid may be in the form of a credit bid.

8. Such other terms as may be announced at the time of Sale.

Given under my hand this 16th day of July, 2018.

J. Patrick Jones,
Substitute Trustee
304-529-8560
(685885)

Proposed Revision to the West Virginia Section 111(d) State Plan

Control of Air Pollution from Municipal Solid Waste Landfills

Notice of Public Hearing and Public Comment Period

The West Virginia Department of Environmental Protection (DEP), Division of Air Quality (DAQ) is revising the Clean Air Act § 111(d) State Plan for the Control of Air Pollution from Municipal Solid Waste (MSW) Landfills. This plan revision incorporates changes made to rule 45 C.S.R. 23 - "Control of Air Pollution from Municipal Solid Waste Landfills". This rule change requires DAQ to submit a State Plan revision for MSW landfills and conduct a public hearing.

DAQ will hold a public hearing on Monday, August 20, 2018 beginning at 5:30 p.m. on a proposed revised State Plan to implement Emission Guidelines for MSW landfills.

The public hearing is being held to satisfy the requirements for submitting a revised § 111(d) State Plan. The revised plan will be submitted to the United States Environmental Protection Agency (USEPA) and supplemented by legislative rule 45 C.S.R. 23 - "Control of Air Pollution from Municipal Solid Waste Landfills," which become effective June 1, 2018. This rule gives West Virginia regulatory authority to adopt, implement and enforce the Emission Guidelines requirements for existing MSW landfills and the New Source Performance Standards for new facilities, either directly through administrative

PROPERTY BELONGING TO T.S. EGGLETON SCOTT DEPOT SCOTT DISTRICT PUTNAM COUNTY R. VA. JULY 19, 1965, SURVEYED BY: J. D. TERRY, AND RECORDED IN THE OFFICE OF THE CLERK OF THE COUNTY COURT OF PUTNAM COUNTY, WEST VIRGINIA, IN MAP BOOK 4, AT PAGE 31, AND THE PROPERTY HEREBY CONVEYED IS SHOWN UPON A MAP THEREOF ENTITLED "MAP SHOWING THE WESTERN HALF OF LOT NO. 6 IN A SUBDIVISION BELONGING TO T.S. EGGLETON SCOTT DEPOT DISTRICT PUTNAM COUNTY, W. VA. SCALE 1"-20' DATE 11-15 1960 DRAWN BY SAMUEL H. HOLDEN, R.P.E." AND RECORDED IN SAID CLERK'S OFFICE IN DEED BOOK 182, AT PAGE 540, AND BEING MORE PARTICULARLY BOUNDED AND DESCRIBED AS FOLLOWS:

BEGINNING AT A COMMON CORNER OF LOTS NO. 6 AND 8 IN THE EASTERLY RIGHT OF WAY LINE OF A 12 FOOT DRIVE AS SHOWN UPON THE AFORESAID MAPS; THENCE RUNNING WITH THE DIVIDING LINE BETWEEN SAID LOTS NO. 6 AND 8, N. 89° 25' E. 100 FEET TO A POINT IN THE NORTHERLY LINE OF SAID LOT NO. 6; THENCE WHICH POINT IS ALSO LOCATED AT THE REAR COMMON CORNER OF LOTS NO. 8 AND 7, AS SHOWN UPON THE AFORESAID MAP OF MT. VERNON HEIGHTS; THENCE RUNNING ACROSS SAID LOT NO. 6, S. 4° 54' E. 129.36 FEET TO A POINT IN THE SOUTHERLY SIDE LINE OF SAID LOT NO. 8; THENCE FOLLOWING SAID SIDE LINE N. 86° 14' W. 100.61 FEET TO A POINT IN SAID 12 FOOT DRIVE; THENCE ALONG THE EASTERLY RIGHT OF WAY OF SAID 12 FOOT DRIVE, N. 4° 36' W. 123.52 FEET TO THE PLACE OF BEGINNING, CONTAINING 0.29 OF ACRE, MORE OR LESS.

TAX ID #: 223B/23.1

BY FEE SIMPLE DEED FROM REX W. O'DELL AND JEAN E. O'DELL, HIS WIFE AS SET FORTH IN DEED BOOK 202, PAGE 455 AND RECORDED ON 2/11/1974, PUTNAM COUNTY RECORDS.

THE SOURCE DEED AS STATED ABOVE IS THE LAST RECORD OF VESTING FILED FOR THIS PROPERTY. THERE HAVE BEEN NO VESTING CHANGES SINCE THE DATE OF THE ABOVE REFERENCED SOURCE.

At the time of the execution of the Deed of Trust, this property was reported to have an address of: 61 Mt Vernon Heights, Scott Depot, WV 25560 aka 206 Mt Vernon Heights, Scott Depot, WV 25560.

The referenced real estate will be conveyed with no covenants of warranty, and subject to all covenants, restrictions, easements, rights of way and reservations which may be a matter of record in the aforesaid Clerk's Office or visible upon the ground, all prior liens and encumbrances, including, without limitation, liens for real estate taxes, incinerator, sanitary and sewer charges. The purchasers at the sale shall

LOT NUMBER FIFTEE (15) ADJOINING SA LOT SIXTEEN (16) THE JORDANVILL SUBDIVISION UNIO DISTRICT, KANAWH COUNTY, WEST VI GINIA, AS THE SAME SOWN UPON A MAP O SAID SUBDIVISIO WHICH MAP IS DATE AUGUST, 1919 AND O RECORD IN THE OF FICE OF THE CLER OF THE COUNTY COM MISSION OF KANAWH COUNTY, WEST VIR GINIA IN DEED BOO 384 AT PAGE 53. MA 34J. PARCELS 66 AND 67

BEING THE SAM FEE SIMPLE PROPER TY CONVEYED BY DEED FROM FREDER ICK M. CRAFT and AN GEL CRAFT TO ANGEL CRAFT NOW KNOWN AS ANGEL MOSLEY, DAT ED 09/10/2004 RECORD ED ON 10/12/2004 IN BOOK 2614, PAGE 771 IN KANAWHA COUNTY RE CORDS, STATE OF WV.

At the time of the execution of the Deed of Trust, this property was reported to have an address of: 417 Jordan St, Dunbar, WV 25064.

The referenced real estate will be conveyed with no covenants of warranty, and subject to all covenants, restrictions, easements, rights of way and reservations which may be a matter of record in the aforesaid Clerk's Office or visible upon the ground, all prior liens and encumbrances, including, without limitation, liens for real estate taxes, incinerator, sanitary and sewer charges. The purchasers at the sale shall be responsible for paying the recording costs and also the tax on the privilege of transferring real property (the cost of the tax stamp to be affixed to the deed). The purchasers shall be responsible for payment of all real estate taxes.

The subject property will be sold in "AS IS" condition. The Substitute Trustee shall be under no duty to cause any existing tenant or person occupying the subject property to vacate said property.

TERMS: $6000.00 in cash and/or certified funds as deposit at the time of sale with the balance due and payable within 30 days of the day of sale.

FEDERAL TAX LIEN: In the event that there are Federal Tax Liens against the property, the United States would have the right to redeem the property within a period of 120 days from the date of such sale or the period allowable for redemption under local law, whichever is longer.

Pursuant to the Deed of Trust, the Trustee may postpone the sale by public announcement at the time and place designated or by posting a notice of the same, and act by agent in the execution of the sale. The parties secured by the Deed of Trust reserve the right to purchase the property at such sale.

SENECA TRUSTEES, INC.
5000 Coombs Farm Drive, Suite 104
Morgantown, WV 26508
(304) 413-0044
(304) 292-2918
Toll free: (888) 534-3132
Reference File No. 62973
(685344)

ED_001764F_00005686-00098

LEGAL ADVERTISEMENT

NOTICE OF PUBLIC HEARING

The Board of Zoning Appeals of the City of Charleston, West Virginia, will hold a public hearing at 8:30 a.m., Thursday, August 23, 2018, in the City Service Center Conference Room located at 915 Quarrier Street, Charleston, WV, on the following:

CUP-18-0188-Application of Wayne Crozier on behalf of Abundant Life Ministries requesting a conditional use permit in order to expand a religious use into a residential zoning district on the property located at **1531 Jackson Street.**

Interested persons are requested to appear and voice opinions with respect thereto. The file is available for your inspection in the Planning Department, City Service Center, 915 Quarrier Street, Suite 1. If you have any questions or concerns, please contact the Planning Department at (304) 348-8105.

(685718)

IN THE CIRCUIT COURT OF KANAWHA COUNTY, WEST VIRGINIA

IN RE: CHANGE OF NAME FROM Sarah Moss

TO: Sarah Snyder

LEGAL NOTICE OF PUBLICATION CHANGE OF NAME PROCEEDING

CIRCUIT COURT OF KANAWHA COUNTY, WEST VIRGINIA

Notice is hereby given that on the 3rd day of August, 2018 at 10:30 o'clock am on said day, or as soon thereafter as the matter may be heard, Sarah Moss will apply by Petition to the Circuit Court of Kanawha County, West Virginia for the entry of an order by said Court changing his/her name from Sarah Moss to Sarah Snyder, at which time and place any interested party may appear and be heard, if they so desire.

You are hereby notified that this matter may be rescheduled without further notice or publication.

A copy of said Petition can be obtained from the undersigned Clerk's Office at: 111 Court Street, Charleston, West Virginia, 25301.

Entered by the Clerk of said Court this 13 day of July, 2018.

CATHY S. GATSON
KANAWHA COUNTY CIRCUIT CLERK
By: A Bailey
Deputy Circuit Clerk

(685691)

FAMILY COURT OF KANAWHA COUNTY, WEST VIRGINIA

ORDER OF PUBLICATION

IN THE MATTER OF:
Makayla Harshfield
William Harshfield
Callie Harshfield
v.

Brandi McVey
William Harshfield

Civil Action #: 18-FIG-154

The object of this suit is to obtain Guardianship of an infant

LEGAL ADVERTISEMENT

NOTICE

Please take notice that at a regular meeting of the Council of the City of St. Albans, West Virginia, held on Monday, July 16, 2018, the following captioned ordinances were read for first reading, and will come up for second reading and adoption at a regular meeting at 6:30 p.m. on Monday, August 6, 2018 in Council Chambers, 51 Sixth Avenue:

1. AN ORDINANCE REPEALING ARTICLE 1781 WIRELESS TELECOMMUNICATIONS FACILITIES AND REPLACING WITH ARTICLE 1781 WIRELESS TELECOMMUNICATIONS FACILITIES SITING ORDINANCE

2. AN ORDINANCE TO CREATE ARTICLE 1712 OF CHAPTER 3 OF PART 17 OF THE CODIFIED ORDINANCES OF THE CITY OF ST. ALBANS RELATED TO THE VACATING, CLOSING, REMOVAL OR DEMOLITION OF STRUCTURES, DWELLING OR BUILDINGS THAT ARE UNSAFE, UNSANITARY, DANGEROUS OR DETRIMENTAL TO THE PUBLIC SAFETY OR WELFARE

3. AN ORDINANCE REPEALING ARTICLE 1760 VACANT BUILDING REGISTRATION AND REGULATION AND REPLACING WITH ARTICLE 1760 VACANT STRUCTURE REGISTRATION PROGRAM AND UNINHABITABLE STRUCTURE REGISTRATION PROGRAM

4. ORDINANCE APPROVING THE ADMINISTRATIVE RESUBDIVISION OF PARCEL 35, MAP 15, AND PARCEL 36, MAP 15 COAL RIVER ACRES, IN THE CITY OF ST. ALBANS, KANAWHA COUNTY, WEST VIRGINIA (2 Sheridan Drive/1211 Pennsylvania Avenue)

These ordinances may be reviewed at the Clerk's Office, 1499 MacCorkle Avenue. All interested persons may appear at said meeting and be heard with respect to the foregoing proposed ordinances.

Barbara Hughes
City Clerk/Treasurer

(685883)

Advertisement for Bids - Interior Renovations For Cabin Creek Health Systems

The Cabin Creek Health Systems invites qualified contractors to bid on a project for Interior Renovations. Briefly the work is described as demolition and interior renovations to existing spaces for use as office space for Cabin Creek Health Systems, located at 104 Alex Lane, Charleston, West Virginia 25314. Major products and systems included in this work are selective interior demolition, steel studding, gypsum board, plastic laminate cabinetry, acoustical ceiling systems, vinyl composition floor tile, LED lighting fixtures, and HVAC sys-

LEGAL ADVERTISEMENT

of Trust, this property was reported to have a mailing address of 926 Park St, Dunbar, WV 25064. WV Trustee Services, LLC were appointed as Substitute Trustees by APPOINTMENT OF SUCCESSOR TRUSTEE dated December 22, 2017, of record in the Clerk's Office in Book 4283, Page 736. The borrower(s) defaulted under the Note and Deed of Trust and the Substitute Trustees have been instructed to foreclose under the Deed of Trust. Accordingly, the Substitute Trustees will sell the following described property to the highest bidder at the front door of the Courthouse of Kanawha County, in Charleston, West Virginia, on the following date:

17th day of August, 2018 at 10:15 a.m.

The property is described as of that certain lot or parcel of land, together with the improvements thereon and the appurtenances thereunto belonging, situate in (Insert District Name) District, Kanawha County, West Virginia, and being more particularly described as follows:

All that certain lot, tract or parcel of land, together with the improvements thereon and the appurtenances thereunto belonging, situate and being in the City of Dunbar, Union District, Kanawha county, West Virginia, and being a portion of the parcel designated "T.D. Saunders, Sr.", on a revised map or plat of Reservoir Hill, which map or plat is duly of record in the aforesaid Clerk's Office in Photostatic Map Book 20, at page 3; the parcel of land herein and hereby conveyed being more particularly bounded and described as follows:

Beginning at a point in the northerly line of Park Avenue, formerly Park Drive, said beginning point being also the southwesterly corner of a 2.2 foot strip of land conveyed by T.D. Saunders, Sr. And Jeanne Saunders, his wife, to Robert G. Saunders and Marsella F. Saunders his wife, by deed dated October 11, 1954, of record in the aforesaid Clerk's office in Deed Book 1116, at page 309; thence from said beginning point and running along the northerly line of said Park Avenue N. 71° 15' W. 157.80 feet to a point in said northerly line of Park Avenue; thence leaving Park Avenue and running N. 20° 06' E. 233.90 feet to an iron pin in the southerly line of Circle Drive; thence running along the southerly line of Circle Drive S. 64° 30' E. 200.00 feet to an iron pin in said southerly line of Circle Drive, said last mentioned iron pin being a common corner between the tract herein conveyed and lot No. 6 of Section 3 of Reservoir Hill, a subdivision in said City of Dunbar; thence leaving Circle Drive and running with a portion of the division line between the tract herein conveyed and said Lot No. 6, Section 3 of Reservoir Hill, S. 31° 24' W. 95.22 feet to a point in said division line; thence leaving said division line and running N. 71° 15' W. 2.2 feet to a point said last mentioned point being the northwesterly corner of the above

LEGAL ADVERTISEMENT

under the terms and conditions of said deed of trust. Therefore, the undersigned Substitute Trustee will sell the real estate described in the Deed of Trust, at a public auction on August 14, 2018 at 10:00 a.m. to the highest bidder at the front door (Virginia Street, East) of the Courthouse of said County of Kanawha, in Charleston, West Virginia, which real estate is more completely described as follows:

All that certain lot, piece, or parcel of land, together with the improvements thereon and the appurtenances thereunto belonging, situate in Jefferson District, Kanawha County, West Virginia, and being more particularly designated and described as Lot 14, Second Section of the Ruthlawn Subdivision, and being further designated and shown upon a plat entitled "Survey For Harold Runyan Lots Nos 11, 12, 13, 14 & 15 Second Section Ruthlawn Subdivision on the waters of Trace Fork of Davis Creek Jefferson District, Kanawha County, West Virginia 1" = 50' made by W D Mason, R P E #4280, dated May 18, 1974, said parcel of land being more particularly bounded and described as follows

BEGINNING at a point in the westerly line of Ruthlawn Drive, said point also being located in the common easterly corner of Lots 13 and 14 of Second Section of said Ruthlawn Subdivision as shown on the aforesaid plat, thence leaving the westerly line of Ruthlawn Drive and running with the common division line of said Lots 13 and 14, S 74° 29' W, a distance of 122.31 feet to an iron pin at the common corner of Lots 13, 14 and 15 and an unnumbered parcel, thence running with the common division line between Lots 14 and 15, N 1° 18' W, a distance of 127.91 feet to a point in Ruthlawn Drive, thence running with said Ruthlawn Drive N 71° E, a distance of 21.37 feet to an iron pin, thence continuing with said Ruthlawn Drive with the chord of the same S 60° 30 1/2" E, a distance of 102.86 feet to an iron pin, thence continuing with said Ruthlawn Drive, S 12° 01' E, a distance of 52.61 feet to the place of beginning

Along with the right to use all roads and streets in Ruthlawn Subdivision which extends from the County Road to the subject property, however, said roads and streets shall not be obstructed or blocked in any way and said right to use said streets shall be jointly with the owners of other lots in this subdivision and adjoining parcels of land

Subject to all those certain restrictions, covenants, conditions and easements as set forth in that certain deed from Harold Runyan and others unto Denver W Loyd and wife, dated July 15, 1970, and of record in the aforesaid Clerk's Office in Deed Book 1596, at page 717

TERMS OF SALE

1. Cash in hand paid on the day of sale.

2. The sale of the prop-

LEGAL ADVERTISEMENT

action requiring compliance with 45 C.S.R. 23, or by including such requirements in State permits, where applicable.

The public hearing will be held in the Dolly Sods conference room #1125, at the DEP Charleston headquarters located at 601 57th Street SE, Charleston, West Virginia 25304. Written and oral comments will be accepted until the close of the hearing on August 20, 2018. Comments will also be accepted by e-mail if transmitted by 5:30 p.m. on August 20, 2018 to richard.a.boehm@wv.gov . Written comments may also be submitted at the following address:

William F. Durham,
Director
Division of Air Quality
601 57th Street, SE
Charleston, WV 25304

Comments submitted by mail must be postmarked by August 20, 2018. Copies of the proposed revised State Plan will be available for public review on or before August 20, 2018, at the Department of Environmental Protection, Division of Air Quality's Charleston office at the above address, or on the website at http://www.dep.wv.gov/dos/publicnotices/comment/Pages/default.aspx.

Appendices to the Plan will be available upon request.

(685715)

TRUSTEE'S SALE OF VALUABLE REAL ESTATE

The undersigned Substitute Trustee, by virtue of the authority vested in him by that certain Deed of Trust, dated February 28, 2007, and duly recorded in the Office of the Clerk of the County Commission of Putnam County, West Virginia, in Document No. 000548960011, in Book No. 821, at Page 672, Carl N. Brown did convey unto Ellie, Payne, Scherer & File, Trustee(s), certain real property described in said Deed of Trust, and the beneficiary has elected to appoint Seneca Trustees, Inc., as Substitute Trustee by a Substitution of Trustee dated April 19, 2018, and recorded in the aforesaid Clerk's office; and default having been made under the aforementioned Deed of Trust, and the undersigned Substitute Trustee having been instructed by Live Well Financial, Inc. to foreclose thereunder, will offer for sale at public auction at the front door of the Putnam County Courthouse in Winfield, West Virginia, on

August 2, 2018 at 11:15 AM

the following described real estate, together with its improvements, easements and appurtenances thereunto belonging, situate in Scott District, Putnam County, West Virginia, and more particularly described as follows:

THE FOLLOWING DESCRIBED REAL PROPERTY SITUATE IN THE CITY OF SCOTT DEPOT, COUNTY OF PUTNAM, AND STATE OF WEST VIRGINIA, TO WIT:

ALL THAT CERTAIN LOT OR PARCEL OF LAND, [illegible] TOGETHER

LEGAL ADVERTISEMENT

be responsible for paying the recording costs and also the tax on the privilege of transferring real property (the cost of the tax stamp to be affixed to the deed). The purchaser shall be responsible for payment of all real estate taxes.

The subject property will be sold in "AS IS" condition. The Substitute Trustee shall be under no duty to cause any existing tenant or person occupying the subject property to vacate said property.

TERMS: $3500.00 in cash and/or certified funds as deposit at the time of sale with the balance due and payable within 30 days of the day of sale.

FEDERAL TAX LIEN: In the event that there are Federal Tax Liens against the property, the United States would have the right to redeem the property within a period of 120 days from the date of such sale or the period allowable for redemption under local law, whichever is longer.

Pursuant to the Deed of Trust, the Trustee may postpone the sale by public announcement at the time and place designated or by posting a notice of the same, and act by agent in the execution of the sale. The parties secured by the Deed of Trust reserve the right to purchase the property at such sale.

SENECA TRUSTEES, INC.
5000 Coombs Farm Drive, Suite 104
Morgantown, WV 26508
(304) 413-0044
(304) 292-2918
Toll free: (888) 534-3132
Reference File No. 62155

(685276)

TRUSTEE'S SALE OF VALUABLE REAL ESTATE

The undersigned Substitute Trustee, by virtue of the authority vested in him by that certain Deed of Trust, dated January 28, 2008, and duly recorded in the Office of the Clerk of the County Commission of Kanawha County, West Virginia, in Book No. 3536, at Page 857, Angel Craft did convey unto James Phillips, Trustee(s), certain real property described in said Deed of Trust; and the beneficiary has elected to appoint Seneca Trustees, Inc., as Substitute Trustee by a Substitution of Trustee dated June 21, 2018, and recorded in the aforesaid Clerk's office; and default having been made under the aforementioned Deed of Trust, and the undersigned Substitute Trustee having been instructed by Bayview Loan Servicing, LLC, a Delaware Limited Liability Company, to foreclose thereunder, will offer for sale at public auction at the front door of the Kanawha County Courthouse in Charleston, West Virginia, on

July 31, 2018 at 4:30 PM

the following described real estate, together with its improvements, easements and appurtenances thereunto belonging, situate in Union District, Kanawha County, West Virginia, and more particularly described as follows:

THAT CERTAIN LOT

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WV State Register
Public Notice

ED_001764F_00005686-00101

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WEST VIRGINIA REGISTER

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Volume XXXV

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July 20, 2018

A Weekly Publication

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Judy Cooper, Manager

Mac Warner
Secretary of State
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ED_001764F_00005686-00104

Proposed Revision to the West Virginia Section 111(d) State Plan
Control of Air Pollution from Municipal Solid Waste Landfills

Notice of Public Hearing and Public Comment Period

The West Virginia Department of Environmental Protection (DEP), Division of Air Quality (DAQ) is revising the Clean Air Act § 111(d) State Plan for the Control of Air Pollution from Municipal Solid Waste (MSW) Landfills. This plan revision incorporates changes made to rule 45 C.S.R. 23 - "Control of Air Pollution from Municipal Solid Waste Landfills". This rule change requires DAQ to submit a State Plan revision for MSW landfills and conduct a public hearing.

DAQ will hold a public hearing on Monday, August 20, 2018 beginning at 5:30 p.m. on a proposed revised State Plan to implement Emission Guidelines for MSW landfills.

The public hearing is being held to satisfy the requirements for submitting a revised § 111(d) State Plan. The revised plan will be submitted to the United States Environmental Protection Agency (USEPA) and supplemented by legislative rule 45 C.S.R. 23 - "Control of Air Pollution from Municipal Solid Waste Landfills," which became effective June 1, 2018. This rule gives West Virginia regulatory authority to adopt, implement and enforce the Emission Guidelines requirements for existing MSW landfills and the New Source Performance Standards for new facilities, either directly through administrative action requiring compliance with 45 C.S.R. 23, or by including such requirements in State permits, where applicable.

The public hearing will be held in the Dolly Sods conference room #1125, at the DEP Charleston headquarters located at 601 57th Street SE, Charleston, West Virginia 25304. Written and oral comments will be accepted until the close of the hearing on August 20, 2018. Comments will also be accepted by e-mail if transmitted by 5:30 p.m. on August 20, 2018 to richard.a.boelan@wv.gov. Written comments may also be submitted at the following address:

William F. Durham, Director
Division of Air Quality
601 57th Street, SE
Charleston, WV 25304

Comments submitted by mail must be postmarked by August 20, 2018. Copies of the proposed revised State Plan will be available for public review on or before August 20, 2018, at the Department of Environmental Protection, Division of Air Quality's Charleston office at the above address, or on the website at http://www.dep.wv.gov/dap/publicnotiscandcomment/Pages/default.aspx. Appendices to the Plan will be available upon request.

FILED

OTHER

WEST VIRGINIA HEALTH CARE AUTHORITY
CERTIFICATE OF NEED
100 Dee Drive
Charleston, West Virginia 25311-1500

FILED

July 16, 2018

LEGAL NOTICE

The West Virginia Health Care Authority announces the following Certificate of Need activities for the week ending **July 13, 2018**.

LETTER OF INTENT RECEIVED

July 13, 2018 – Bluefield Clinic Company, LLC, Franklin, Tennessee, CON File #18-1-11410-P, for the development of an ambulatory health care facility in Mercer County through the acquisition of an existing physician practice, capital expenditure: $100,000.

CERTIFICATE OF NEED APPLICATIONS RECEIVED

July 9, 2018 – Ronceverte Physician Group, LLC, Franklin, Williamson County, Tennessee, CON File #18-1/4-11402-P, for the development of ambulatory health care facilities in Greenbrier and Raleigh counties through the acquisition of a physician practice with offices in these two counties, capital expenditure: $815,000.

July 12, 2018 - War Memorial Hospital, Berkeley Springs, Morgan County, CON File #18-9-11404-P, for the outpatient therapy services located off campus at 261 Berkmore Place #2A, Berkeley Springs, Morgan County; capital expenditure: $10,000.

APPLICATIONS FOR EXEMPTION RECEIVED

July 11, 2018 – Synergy Health, Inc., Charleston, Kanawha County, CON File #18-3-11407-X, for the development of behavioral health outpatient services in Kanawha County.

July 11, 2018 – West Virginia University Hospitals, Inc., Morgantown, Monongalia County, CON File #18-6-11408-X, for the reconfiguration of 12 of the 49 psychiatric inpatient beds from psychiatric residential treatment facility/sex offender unit beds to psychiatric beds.

Further information may be obtained on any of the above-referenced projects by contacting Barbara Skean, Director, Certificate of Need Division.

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Public Hearing
Sign-in Sheet

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west virginia department of environmental protection

Public Hearing: August 20, 2018 at 5:30 PM, Dolly Sods Conference Room
West Virginia CAA § 111(d) State Plan Revision
Control of Air Pollution from Municipal Solid Waste Landfills

SIGN-IN SHEET

The information provided below becomes part of the public record related to this topic.

	Name (please print)	Address	Organization	Phone	E-mail	Comment Y/N
368	Mike Runner	Fairmont, WV	Waste Management	681-258-5719	mrunner@wm.com	N
369	Missy Young	Bissonville WV	Court Reporter	304-539-6192		N
	Richard Boehm	WVDEP-DAQ 601 57th Charleston, WV 25304		304-926-0499 x1687	richard.a.boehm@wv.gov	N
	Laura Jennings	WVDEP/DAQ	DAQ	(304) 926-0499 x1217		N

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Public Hearing Transcript

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ORIGINAL

BEFORE THE WEST VIRGINIA DEPARTMENT OF
ENVIRONMENTAL PROTECTION
DIVISION OF AIR QUALITY
MUNICIPAL SOLID WASTE LANDFILL PUBLIC HEARING

RECEIVED
AUG 23 2018
WV DEP / DIV OF AIR QUALITY

In re: 45CSR23 - *Control of Air Pollution from Municipal Solid Waste Landfills*

Transcript of proceedings had at a public hearing in the above-styled matter taken at the West Virginia Department of Environmental Protection, Division of Air Quality, Conference Room, 601 57th Street, S. E., Charleston, West Virginia, commencing at 5:35 p.m., on the 20th day of August 2018, pursuant to notice.

MISSY L. YOUNG, C.C.R.
POST OFFICE BOX 13622
SISSONVILLE, WEST VIRGINIA 25360
304-539-6192

1 **P R O C E E D I N G S**

2

3 MR. BOEHM: Good evening and thank you for
4 coming tonight. My name is Rich Boehm and I am an Engineer
5 with the West Virginia Department of Environmental
6 Protection in the Division of Air Quality. If you haven't
7 already done so, please put your name on the sign-in sheet
8 before leaving. I need to do that as well. If you have
9 written comment that you would like to submit, please give
10 them to Stephanie Hammonds; she is currently outside and
11 will be back in shortly. If you want to submit oral
12 comments, please raise your hand when I state that the
13 floor is open for comments. When I call on you, clearly
14 state your name and indicate if you are representing any
15 group or organization. Unlike a public meeting, this
16 public hearing we will not be responding to questions.
17 This public hearing will now come to order
18 on this 20th day of August 2018 at the West Virginia
19 Department of Environmental Protection Headquarters.
20 Comments and testimony will be accepted until the close of
21 this hearing and will be made part of the West Virginia
22 State Plan Revision Record. Any written or oral comment
23 regarding the proposed state plan revision will be

STATE OF WEST VIRGINIA,

COUNTY OF KANAWHA, to-wit:

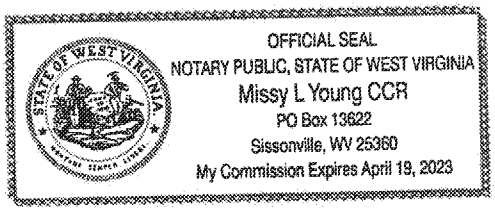
I, the undersigned, Missy L. Young, a Certified Court Reporter and Notary Public within and for the State of West Virginia, duly commissioned and qualified, do hereby certify that the foregoing, was taken to the best of my skill and ability, a true and accurate transcript of all the proceedings had in the aforementioned matter.

Given under my hand and official seal this 22 day of August 2018.

Missy L. Young, CCR.

Certified Court Reporter
Notary Public for the State of West Virginia

My commission expires April 19, 2023.



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Public Comments

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Comments from Commenter 1

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National Waste & Recycling Association℠
Collect. Recycle. Innovate.

SWANA®
SOLID WASTE ASSOCIATION of North America

August 16, 2018

William F. Durham, Director
Division of Air Quality
601 57th Street, SE
Charleston, WV 25304

Submitted electronically: Richard.a.boehm@wv.gov

Re: Proposed Revision to the West Virginia Section 111(d) State Plan, Control of Air Pollution from Municipal Solid Waste Landfills

Dear Mr. Durham:

The National Waste & Recycling Association (NWRA) and the Solid Waste Association of North America (SWANA) are pleased to provide the following comments to the West Virginia Department of Environmental Protection (DEP), Division of Air Quality (DAQ) in response to DAQ's notice about proposed revisions to the West Virginia Section 111(d) State Plan on the Control of Air Pollution from Municipal Solid Waste Landfills.

In response to USEPA's promulgation of Subpart Cf, a group of industry petitioners, including NWRA and SWANA, filed an administrative petition requesting that USEPA convene a proceeding to correct certain fundamental flaws in the rule and to stay the effectiveness of Subpart Cf until such time as USEPA makes such necessary revisions to the rule. The same group of industry petitioners has filed a judicial challenge to Subpart Cf that is currently before the United States Appeals Court for the District of Columbia Circuit (DC Circuit).

On May 5, 2017, USEPA granted industry's petition for reconsideration. USEPA plans to align reconsideration of the Subpart Cf rules with the risk technology review (RTR) for the Landfill National Emission Standards for HAPs (NESHAPs) that is currently underway. The USEPA is under Court Order to complete the RTR and issue rulemaking by March 2020. Considering the pending reconsideration effort and the current RTR, which may result in revisions to the rule, **DAQ should consider delaying any action to revise the state's CAA Section 111(d) plan until the reconsideration process is completed and**

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pending administrative petitions and legal challenges to Subpart Cf are resolved. This is consistent with the actions of the vast majority of other states.

Although NWRA and SWANA believes that no action is warranted at this time, in the event that DAQ nevertheless moves forward with revisions to the state's CAA Section 111(d) plan, we respectfully request that DAQ consider the following issues:

1. The proposed state plan incorrectly classifies sites as being "new" subject to NSPS Subpart XXX when in fact they are "existing" sites subject to EG Subpart Cf. A construction permit that increases the design capacity of the landfill may permit multiple cells for construction; a modification occurs when construction commences on the first cell. USEPA has clarified that cell construction, by itself, does not constitute "modification."

   Since construction at many of the landfills on the State's list commenced *prior to* July 17, 2014, the landfills are "existing sites" and not subject to NSPS Subpart XXX. Both subparts WWW & XXX clearly indicate permits issued by the state agency responsible for regulating the landfill are based on the maximum design capacity of the landfill (see §60.757 (a)(2) and 60.767(a)(2)). If any landfill received a permit to expand the design capacity of the landfill *after* July 17, 2014, then the landfill would be subject to NSPS XXX - once construction on the permitted expansion commences.

   In addressing questions on this matter in the July 2016 Response to Public Comments for Subparts XXX and Cf, USEPA referred to the 1998 clarifications to Subparts WWW and Cc, noting that:

   > *[F]or 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.* (63 FR 32744)

   The attached table clarifies applicability status of MSW Landfills based on the most recent state-issued permits that authorized increases in maximum design capacity.

2. **DAQ's rule implementing Subpart Cf must not be more stringent than the portion implementing Subpart XXX** – While USEPA promulgated revised emission guidelines in Subpart Cf, USEPA published revised New Source Performance Standards (NSPS) at Subpart XXX. Subparts Cf and XXX contain nearly identical compliance requirements even though they apply to existing and new sources, respectively. Although states have flexibility to implement Subpart Cf through the adoption of regulations and the promulgation of a state plan, the CAA makes clear that emission guidelines affecting existing sources should not be more stringent than NSPS affecting new sources.

3. **The effective date of any rule implementing Subpart Cf should occur after USEPA has approved the DAQ State Plan pursuant to CAA Section 111(d) or 40 C.F.R. Part 60, Subpart B** – To avoid confusion related to the effective date of the West Virginia rule implementing Subpart Cf, DAQ should adopt regulatory text that states that the revisions will not take effect until

USEPA approves West Virginia's plan pursuant to CAA Section 111(d) and 40 C.F.R. Part 60, Subpart B.

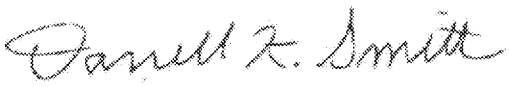
The West Virginia legislative rule 45 C.S.R. 23 – Control of Air Pollution from Municipal Solid Waste Landfills appears to be inconsistent with the compliance timelines expressed in the EG Subpart Cf rules. Rule 45 C.S.R 23 requires a site subject to the rule to submit its initial design capacity report and NMOC emission rate report no later than one year from the effective date of the rule (see 45 C.S.R. 23, 7.9.a and 7.9.c). 45 C.S.R. 23 was effective June 1, 2018, therefore the initial compliance reports are due by June 1, 2019. 40 CFR 60 Subpart Cf clearly states these initial compliance reports are due no later than 90 days after the effective date of EPA approval of the state's plan (see 60.38f). Depending on when EPA approves the West Virginia State Plan, the compliance due dates could be more or less stringent than EG Subpart Cf requirements.

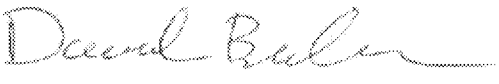
4. **If DAQ incorporates any aspect of Subpart Cf by reference, DAQ should adopt language stating that future amendments to Subpart Cf carry through to the State Rule** – To ensure consistency with any aspect of Subpart Cf that is incorporated by reference, DAQ should specify that such incorporation encompasses any future changes, additions, or revisions to the federal rule.

5. **DAQ should include an Automatic Rescission Clause** – For the reasons stated above, there is a chance that some or all aspects of Subpart Cf will be stayed, repealed, or revised. DAQ's rule implementing Subpart Cf should be void to the same extent Subpart Cf is rendered unenforceable.

Thank you for this opportunity to provide input to DAQ as the Agency considers revisions to its state rules regulating existing landfills.

Very truly yours,





Darrell K. Smith
President & CEO
National Waste & Recycling Association

David Biderman
Executive Director & CEO
Solid Waste Association of North America

Att: Table 1 - NSPS Subpart XXX/EG Subpart Cf Applicability

Table 1 - NSPS SUBPART XXX / EG SUBPART Cf APPLICABILITY – WEST VIRGINIA MSW LANDFILLS		
Facility Name	**Date of Most Recent Permitted Increase in Design Capacity**	**Is the facility subject to Subpart Cf or XXX?**
Charleston Landfill	1995	Cf
Disposal Service, Inc.	Prior to 2000 (not expected to commence construction until 2022)	Cf
Meadowfill	2012	Cf
L.C.S Services aka North Mountain	1991	Cf
Northwestern Landfill	1996 (50,000 Mg). Phase 2 (1.620 Mil Mg) is a proposed future area that has not yet commenced construction	Cf
S&S Landfill	2004 (Phase 3D). Phases 4-7 are proposed future areas on which construction has not yet commenced	Cf

Comments from Commenter 2

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Ohio Valley Environmental Coalition

Supporting Organized Voices and Empowered Communities Since 1987

P.O. 6753 Huntington, WV 25773-6753

304-522-0246 info@ohvec.org

ohvec.org

August 20, 2018

Re: Public Comments on West Virginia State Plan Revision for Municipal Solid Waste Landfills

Comments submitted by:

William J Hughes
862 Scheidler Run Rd.
New Martinsville, WV, 26155
August 20, 2018

and the

Ohio Valley Environmental Coalition (OVEC)
Pox Box 6753
Huntington, WV 25773-6753

++

Two major topics should be added to the draft air quality regulations for all landfills which are receiving any drill waste products from horizontal shale gas wells.

++

SECTION ONE New waste-stream and landfill recent modifications

Over the past few years a number of West Virginia municipal solid waste landfills started taking in large quantities of a new, not fully characterized waste material, which is removed from many of the natural gas horizontal wells in the tri-state area. In order to comply the new solid waste disposal requirements, many of these landfills modified and expanded their operations. They added special dedicated cells for drilling waste with separate leachate collection systems. These drill cuttings and related waste from horizontal wells have unique characteristics, and since this type of waste has never before been buried in Municipal Solid Waste Landfills anywhere in the state, there are unknown risks of from burying these wastes, both in the short- and long-term for environmental and public health. The health risks are much more pronounced for the landfill workers.

The two major air pollution problems with low level radioactive waste contained within the horizontal bore shale material are the real possibility of air borne dusts and the ever-present creation of Radon-222 which is derived from the presence of Radium 226 in the shale cuttings. Therefore, two additional, major topics should be added to and addressed in detail within this draft plan for revisions of the state plan: DUST and RADON.

SECTION TWO Drill cuttings, dust creation, transport, employee risks

Control and management of dust is a constant chore at any municipal solid waste (MSW) landfill. However, the routine dust from haul roads and normal landfill operations, which are receiving and disposing primarily of household trash and miscellaneous waste, do not carry the greatly increased risk from airborne dust derived from drill cuttings from deep horizontal wells.

When the drill cuttings leave the well pad whether by enclosed-roll-off trucks or covered dump truck, they usually have a high initial moisture content from the ages-old formation brine surrounding the shale and also from any drill muds and other fluids used during the drilling process. Quite often these truckloads of moist drill waste will be "bulked-up" or solidified with a variety of added material to absorb some moisture. This operation will be done at a distance away from the active working face of the dedicated cell where the waste will eventually be buried. In such work areas, there is a potential for the generation of airborne dust if appropriate dust suppression methods are not used.

At a designated "bulking-up" location the material will be unloaded, mixed, combined and blended, and then reloaded onto other larger trucks to be taken to the active cell to be again unloaded and pushed by a dozer into the final location. During every step of this multi-stage handling process, drill cutting material will be dropped, driven over, and further pulverized into dry dust which must be confined and controlled.

A significant portion of the shale oil and gas drilling wastes (drill cuttings) are fine-grained, clay or silt-sized particles. The larger-sized shale rock cuttings will quickly weather to the natural clays and silts of the parent materials. As such, when the waste materials dry out, they are easily transported by wind. However, unlike the typical wind-blown wastes and dust at a typical solid waste municipal landfill, these dusts contain heavy and radioactive metals as well as hydrocarbons and other constituents of concern that can have a negative effect on the landfill workers, the surrounding community, the environment, and the air shed.

In addition to the natural clay and silt-sized materials in the horizontal bore, which are extracted during the drilling phase, it is very likely that fine-grained silica sand and its dust (used to prop open the shale fractures during the completion process) will also be part of the shale oil and gas drilling waste stream. These silica dusts are also dangerous and can represent significant health risks to the workers at the landfills and the surrounding community and environment. The draft rules are silent on these issues. They need to be specifically addressed.

Should there not be a detailed discussion within the draft plan about the unique nature of wind-blown dust from the shale drilling wastes in the open cells, specifically on the working faces of the cells? The worker health issues are significantly different and greater for shale drilling wastes than most typical municipal solid waste (MSW) landfills receiving primarily household garbage; these issue are more on the order of asbestos wastes—asbestos wastes are double bagged to prevent the release of asbestos dust. Dust from shale drilling wastes may also have health implications. The shale drilling waste dusts are also cancer and lung disease hazards —both the natural rock itself and the resulting drill cuttings and the silica sands used to prop open the fracture sites after drilling is done. In addition, other materials introduced into the drilling and completion process may be hazardous if released as dust.

Specific questions on dust creation and control

1. How will the workers be protected from these potentially health-impacting dusts?
2. How will wind-blown dust be controlled?
3. What practices will be instituted to ensure that these wastes are not allowed to dry out and be blown around within the landfill property and also transported by wind beyond the landfill to nearby residents?

4. Where will considerations for the need to monitor the dust and the possible requirement of respirators be placed in these rules?
5. Will the WVDEP require monitoring of radiological parameters in the fugitive dust both near drilling waste solidification process and the subsequent waste placement areas?
6. Is WVDEP, DAQ considering implementing a shale drilling waste management strategy similar to the requirements of the disposal of asbestos waste to reduce the risk of wind-blown hazardous dust from the shale drilling wastes at the landfills? If not, why not?
7. What testing has the WVDEP undertaken to understand the nature of these potentially wind-blown dusts? How will they be managed?

SECTION THREE Radon-222 gas: its creation, detection and health concerns

As mentioned in SECTION ONE above, we have never knowingly buried very large quantities of known low-level radioactive waste in a generic, municipal solid waste landfill originally designed for household garbage. The prudence or danger of doing so might not be known for generations. During the past six years or so, about 850,000 tons of drill waste have been buried in just the Wetzel County Landfill alone. Besides the constant dust concerns, since that waste contains significant amounts of Radium 226 and as a mother isotope will forever be decaying into the daughter element, a noble gas, called Radon 222. Radon's half-life is only 3.8 days so it might not seem to be very consequential. However, the half-life of the parent isotope Radium 226 is 1600 years. And, Radon is known to be the second leading cause of lung cancer, behind cigarette smoking.

Many landfills already have a gas collection and control system, a GCCS. These systems are designed to capture and thermally reduce or destroy the routine methane and other forms of volatile and other organic gases and semi-volatile compounds normally found in MSW landfills. However, since shale oil and gas drilling wastes are radioactive they also produce radon gas. Radon gas moves through the cells with the other gases and into the gas collection system or leaks out of the landfill with methane but, because it is a noble gas, unlike methane and the other organic gases, radon does not burn in the flare used on a gas collection system. Radon is heavier than air and will lay in low areas around the landfill unless it is disturbed by wind.

Specific questions on Radon measuring and control

8. What studies has the WVDEP or other state agencies undertaken to determine the volumes of radon gas that are or will be emanating from the landfill areas dedicated to the disposal of shale gas drill cuttings?
9. What levels of radon already exist in the buildings surrounding the landfills that are accepting shale oil and gas drilling wastes?
10. What measures should the landfill operators take to manage the release of radon gas into the air shed?
11. What health precautions should be undertaken to insure that the workers are not exposed to injurious levels of radon gas? The draft rules are silent on this topic and it needs to be addressed.
12. How will landfill gas management efforts be modified to address the issue of radon gas?
13. Will the WVDEP require monitoring for radon gas in the landfill gas management system?

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Correspondence

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NOTIFICATION OF PROPOSED STATE PLAN LETTER TO EPA

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west virginia department of environmental protection

Division of Air Quality
601 57th Street, SE
Charleston, WV 25304

Austin Caperton, Cabinet Secretary
dep.wv.gov

July 17, 2018

Ms. Cristina Fernandez, Director
Air Protection Division
U.S. EPA, Region 3
1650 Arch Street (3AP00)
Philadelphia, PA 19103-2029

Re: West Virginia Revised CAA § 111(d) Plan for Municipal Solid Waste (MSW) Landfills

Dear Ms. Fernandez:

I am herein submitting the above-referenced proposed revision to the West Virginia § 111(d) Plan for review and comment by the U. S. Environmental Protection Agency (EPA). West Virginia state rule 45 C.S.R. 23, *Control of Air Pollution from Municipal Solid Waste Landfills*, effective June 1, 2018, was revised in response to final rules published by the EPA on August 29, 2016 titled "*Standards of Performance for Municipal Solid Waste Landfills*" and "*Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills*".

The public comment period commences on July 20, 2018. The WV Department of Environmental Protection, Division of Air Quality will accept written comments on the proposed state plan revision until August 20, 2018. In addition, the agency will receive oral and written comments at a public hearing to be held on August 20, 2018 at 5:30 p.m. as detailed in the notice.

Please submit any written comments to my attention at the above address, or feel free to call me with any questions regarding this matter at (304) 926-0462.

Sincerely,

William F. Durham
Director

WFD/lmj
Enclosures

cc: Rich Boehm, DAQ
Mike Gordon, USEPA/3AP10
Laura Jennings, DAQ

Promoting a healthy environment.

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Response to Comment Document

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West Virginia State Plan Revision for the Control of Air Pollution from Municipal Solid Waste Landfills

RESPONSE TO COMMENTS

On July 20, 2018 the Department of Environmental Protection (DEP), Division of Air Quality (DAQ) commenced a thirty-day public comment period and subsequently held a public hearing on August 20, 2018 to accept oral comments on the proposed West Virginia *State Plan Revision for Municipal Solid Waste Landfills* (State Plan). Written comments were also accepted through the conclusion of the public hearing on Monday, August 20, 2018. Written comments were received via e-mail from Darrel Smith of the National Waste and Recycling Association and David Biderman of the Solid Waste Association of North America; and via e-mail from William Hughes and the Ohio Valley Environmental Coalition. No persons provided verbal comments at the public hearing.

A summary of the comments received, along with the corresponding responses are provided below. This Response to Comment document was e-mailed to each of the commenters. The full comments, as received, are provided as an attachment to this response to comment document.

Background

On August 29, 2016, the Environmental Protection Agency (EPA) published *Standards of Performance for Municipal Solid Waste Landfills*, under section (111)(b) of the Clean Air Act, as amended (CAA) and *Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills* under section (111)(d) of the CAA. The EPA established a new subpart (40CFR60, Subpart XXX) that updated the New Source Performance Standards (NSPS) for municipal solid waste (MSW) landfills following its review of this source category, rather than updating the existing subpart (40CFR60, Subpart WWW). The requirements in 40CFR60, Subpart XXX apply to any MSW landfill for which construction, reconstruction, or modification commenced after July 17, 2014. The EPA likewise established a new subpart when it revised the Emission Guidelines (EGs) at 40CFR60, Subpart Cf. The EPA established EGs and compliance times for the control of designated pollutants from designated existing MSW landfills that commenced construction, modification, or reconstruction on or before July 17, 2014 under 40CFR60, Subpart Cf.

States with one or more existing MSW landfills that commenced construction, modification, or reconstruction on or before July 17, 2014, are required to submit a State Plan to the EPA that implements the EGs in 40CFR60, Subpart Cf and meets the requirements of 40CFR60, Subpart B and 40CFR60, Subpart Cf.

West Virginia proposed revisions to legislative rule, 45CSR23 *Control of Air Pollution from*

Municipal Solid Waste Landfills, which incorporated by reference the MSW landfill new source performance standards in 40CFR60, Subpart XXX and adopted the requirements of the EGs under 40CFR60, Subpart Cf as of June 7, 2017. The public comment period for 45CSR23 commenced June 9, 2017 and concluded with the public hearing on July 11, 2017. 45CSR23 became effective June 1, 2018 following approval by the 2018 WV Legislature and signature by the Governor.

The proposed revisions to the State Plan, are based on DAQ legislative rule 45CSR23, effective June 1, 2018. The proposed revisions to the State Plan address the EPA's August 29, 2016 final rule *Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills* [81 Fed. Reg. 59276, August 29, 2016]. The public comment period for the proposed State Plan commenced July 20, 2018 and concluded with the public hearing August 20, 2018. The purpose of this document is to respond to comments received regarding the proposed State Plan.

A summary of the comments received along with DAQ's response to each comment is provided below, organized by commenter in the order they were received.

1. COMMENTER - National Waste & Recycling Association (NWRA), by Darrel Smith and the Solid Waste Association of North America (SWANA), by David Biderman.

COMMENT 1A
Commenters state DAQ should consider delaying any action to revise the state's CAA Section 111(d) plan until the reconsideration process is completed and pending administrative petitions and legal challenges to Subpart Cf are resolved.

RESPONSE 1A
Reconsiderations and legal challenges are not uncommon in rulemaking. Following its response to comments, the DAQ plans on meeting it's commitment to the EPA regarding the submittal of a revised State Plan.

If and when the EPA publishes a future final action regarding the EGs, the DAQ plans to review any changes and, if necessary, initiate corresponding legislative rulemaking at the state level followed by subsequent proposed revisions to the State Plan. In the event a court of competent jurisdiction rules that the EGs, established under 40CFR60, Subpart Cf are invalid, the WV DAQ would not pursue enforcement.

COMMENT 1B:
Commenters state that the proposed state plan incorrectly classifies sites as being "new" subject to the NSPS requirements in 40CFR60, Subpart XXX when in fact they are "existing" sites subject to the EGs in 40CFR60, Subpart Cf (as adopted in 45CSR23). A construction permit that increases the design capacity of the landfill may permit multiple cells for construction; a modification occurs when construction commences on the first cell. USEPA has clarified that cell construction, by itself, does not constitute "modification."

RESPONSE 1B:
The DAQ reviewed the relevant sections of EPA's Response to Public Comments for Subparts XXX and Cf and the 1998 clarification to Subparts WWW and Cc. The DAQ also revisited the definition of "modification" under 45CSR23 section 2.7 which "means an increase in the permitted volume design capacity of the landfill 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".

For consistency, the DAQ decided to review all permitted disposal areas for landfills as of July 17, 2017 and after July 17, 2017, rather than review only the landfills identified in the comment. In response to this comment, the DAQ revised the *Active MSW Landfill Emissions Inventory Table* in the Emissions Inventory section (4.2) in the final revision to the State Plan to correct these errors. The landfills identified in the Table below have been corrected in the final revision to the State Plan. For completeness, it is worth noting that Short Creek Landfill aka Northfork Landfill has stated to the DAQ they will voluntarily comply with the NSPS requirements in Subpart XXX.

NSPS SUBPART XXX / EG SUBPART Cf APPLICABILITY — WEST VIRGINIA MSW LANDFILLS		
Facility Name	IS THE FACILITY SUBJECT TO SUBPART Cf or XXX?	
	Proposed State Plan	Final State Plan
Brooke Valero	XXX	Cf, as adopted in 45CSR23
Charleston Landfill	XXX	Cf, as adopted in 45CSR23
Disposal Service, Inc.	XXX	Cf, as adopted in 45CSR23
Meadowfill	XXX	Cf, as adopted in 45CSR23
Mercer County Landfill L.C.S. Services aka North Mountain	XXX	Cf, as adopted in 45CSR23
Northwestern Landfill;	XXX	Cf, as adopted in 45CSR23
S & S Landfill	XXX	Cf, as adopted in 45CSR23
Short Creek Landfill Aka Northfork Landfill	XXX	Cf, as adopted in 45CSR23
Wetzel County Landfill	XXX	Cf, as adopted in 45CSR23

COMMENT 1C:
Commenters state the DAQ's rule implementing Subpart Cf must not be more stringent than the portion implementing Subpart XXX. While USEPA promulgated revised EGs in Subpart Cf, USEPA published revised New Source Performance Standards (NSPS) at Subpart XXX. Subparts Cf and XXX contain nearly identical compliance requirements even though they apply to existing and new sources, respectively. Although states have flexibility to implement Subpart Cf through the adoption of regulations and the promulgation of a state plan, the CAA makes clear

that emission guidelines affecting existing sources should not be more stringent than NSPS affecting new sources.

RESPONSE 1C:
The CAA prohibits states from being less stringent than the federal counterpart when they adopt federal requirements into state plans. The WV *State Plan Revision for the Control of Air Pollution from Municipal Solid Waste Landfills* is neither less stringent, nor more stringent than the federal EGs provided under 40CFR60, Subpart Cf; and neither less stringent, nor more stringent than the federal NSPS under 40CFR60, Subpart XXX.

COMMENT 1D:
Commenters state that the effective date of any rule implementing Subpart Cf should occur after USEPA has approved the DAQ State Plan pursuant to CAA Section 111(d) or 40CFR60, Subpart B. To avoid confusion related to the effective date of the West Virginia rule implementing Subpart Cf, the DAQ should adopt regulatory text that states that the revisions will not take effect until USEPA approves West Virginia's plan pursuant to CAA Section 111(d) and 40CFRPart 60, Subpart B. The West Virginia legislative rule 45CSR23 — Control of Air Pollution from Municipal Solid Waste Landfills appears to be inconsistent with the compliance timelines expressed in the EG Subpart Cf rules. Rule 45CSR23 requires a site subject to the rule to submit its initial design capacity report and NMOC emission rate report no later than one year from the effective date of the rule (see 45CSR23, 7.9.a and 7.9.c). 45CSR23 was effective June 1, 2018, therefore the initial compliance reports are due by June 1, 2019. 40 CFR 60 Subpart Cf clearly states these initial compliance reports are due no later than 90 days after the effective date of EPA approval of the state's plan (see 60.38f). Depending on when EPA approves the West Virginia State Plan, the compliance due dates could be more or less stringent than EG Subpart Cf requirements.

RESPONSE 1D:
The public comment period for 45CSR23, *Control of Air Pollution from Municipal Solid Waste Landfills,* concluded July 11, 2017. 45CSR23 became effective June 1, 2018.

For approval by the EPA, States are required to demonstrate in the State Plan submittal, they have the legal authority to carry out the State Plan; therefore, WV legislative rulemaking must occur prior to the development and submittal of the State Plan.

States are required to submit State Plans within nine (9) months after a final Emission Guideline document is published in the Federal Register. The *Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills: Final Rule* was published on August 29, 2016 [81 Fed. Reg. 59276]. According to the EGs, initial compliance reports are due no later than 90 days after the effective date of EPA approval of the State's Plan, on or before May 30, 2017. When the final EGs were published on August 29, 2016, the statutory deadline for proposing legislative rules for the 2017 West Virginia Legislative Session had already passed. Therefore, the WV DEP filed proposed revisions to 45CSR23 with the Secretary of State's Office on June 7, 2017 for the 2018 WV Legislative Session. The public comment period for 45CSR23 commenced June 9, 2017 and

concluded with the public hearing July 11, 2017. 45CSR23 was finalized March 22, 2018 following approval by the 2018 WV Legislature and signature by the Governor and became effective June 1, 2018.

The State Plan was due to EPA on or before May 30, 2017, as discussed above. The EPA is required to propose the State Plan (or revision) for approval or disapproval within four (4) months [40CFR§ 60.27]. If WV had submitted its revised State Plan on May 30, 2017, then the EPA would have been required to propose approval or disapproval of the revised State Plan by September 30, 2017. Ninety (90) days following for the initial compliance reports would have been December 29, 2017. Historically, EPA approval within 4 months is not practical and the WVDEP was not able to meet its 9-month deadline. These deadlines therefore are discussed for points of reference purposes.

WV DAQ took these dates into consideration when it established the due date for the initial compliance reports in 45CSR23 as one (1) year from the effective date of the rule. Additionally, WV DAQ took into consideration the need for a practical, non-ambiguous due date for initial compliance reports to provide clear direction for both sources and enforcement. It is not possible to predict a due date based on EPA plan approval, nor to use such language in a legislative rule; therefore, WV DAQ selected a time-frame that it considered neither too stringent nor too lenient, meeting the intention of the EGs. Had WV submitted its revised state plan on time and EPA acted on time, EPA's proposed rule to approve the revised plan would have been September 30, 2017. WV DAQ disagrees that the initial compliance date of June 1, 2019 for the initial capacity report is a more stringent requirement.

COMMENT 1E:
Commenters state that if DAQ incorporates any aspect of Subpart Cf by reference, DAQ should adopt language stating that future amendments to Subpart Cf carry through to the State Rule. To ensure consistency with any aspect of Subpart Cf that is incorporated by reference, DAQ should specify that such incorporation encompasses any future changes, additions, or revisions to the federal rule.

RESPONSE 1E:
45CSR23 adopts the provisions of 40CFR60, Subpart Cf under section 7 of 45CSR23; it does not incorporate by reference the EGs. West Virginia State Code prohibits prospective rulemaking. Furthermore, WVDAQ does not have the authority to include language in the State Plan that would circumvent the WV Legislature.

Please also refer to the Response to Comment 1A.

In response to this comment, DAQ clarified references to the EGs in NSPS, Subpart Cf in the State Plan by adding the phrase *as set forth in 45CSR23*.

COMMENT 1F:
Commenters state DAQ should include an Automatic Rescission Clause because there is a chance that some or all aspects of Subpart Cf will be stayed, repealed, or revised. DAQ's rule implementing Subpart Cf should be void to the same extent Subpart Cf is rendered unenforceable.

RESPONSE 1F:
Please refer to the Response to Comments 1A.

2. COMMENTER - William Hughes and the Ohio Valley Environmental Coalition

The comments from these commenters are categorized as general comments; new waste-stream and landfill recent modifications; drill cuttings, dust creation, transport, employee risks; and radon-222 gas: its creation, detection, and health concerns.

General Comments:

COMMENT 2A:
The commenters state two major topics should be added to the draft air quality regulations for all landfills which are receiving any drill waste products from horizontal shale gas wells.

RESPONSE 2A:
The comment refers to the rule. The rule is not being considered for comment. The public comment period for the air quality regulation, 45CSR23, *Control of Air Pollution from Municipal Solid Waste Landfills,* concluded July 11, 2017 and the rule is currently in effect. This public comment period pertained to the proposed State Plan.

New waste-stream and landfill recent modifications

COMMENT 2B:
Commenters state that West Virginia municipal solid waste landfills started taking in large quantities of new, not fully characterized waste material removed from many of the natural gas horizontal wells in the tri-state area. These drill cuttings and related waste from horizontal wells have unique characteristics, and since this type of waste has never before been buried in Municipal Solid Waste Landfills anywhere in the state, there are unknown risks of from burying these wastes, both in the short- and long-term for environmental and public health. The health risks are much more pronounced for the landfill workers.

RESPONSE 2B:
The purpose of the proposed revision to the State Plan is to control emissions of designated air pollutants specified in the corresponding federal EGs, namely nonmethane organic compounds (NMOC) and methane emissions. The proposed revision to the State Plan is not intended to address the types of wastes that may be accepted by MSW landfills. Commercial solid waste

facilities may lawfully receive drill cutting and drilling waste generated from horizontal well sites in accordance with West Virginia Code §22-15-8

The DEP Division of Water & Waste Management (DWWM) regulates solid waste, under legislative rule 33CSR1, *Solid Waste Management Rule,* and interpretive rule 33CSR1A, *Disposal of Completion or Production Waste.* The solid waste management rule establishes requirements for the siting, financial assurance, installation, establishment, construction, design, groundwater monitoring, modification, operation, permitting, closure and post-closure care of any solid waste facility that processes, recycles, composts, transfers or disposes of solid waste pursuant to W. Va. Code §22-15-1 et seq. The disposal of completion or production waste rule provides guidance and direction to commercial solid waste facilities for the proper disposal of completion or production waste as a special solid waste generated from horizontal well sites, pursuant to the provisions of 33CSR1.

"Municipal Solid Waste", as defined in 33CSR1 §2.79, means any household or commercial solid wastes as defined in 33CSR1 and any sludge from a waste treatment plant or a water supply treatment plant. Drill cuttings and associated drilling wastes are regulated as special solid waste. The WVDEP allows such waste to be disposed of at permitted municipal solid waste facilities within the state.

The comment that WV MSW landfills started taking in large quantities of new, not fully characterized waste material removed from many of the natural gas horizontal wells in the tri-state area is not accurate. Waste profiling requirements for the disposal of drilling waste generated from horizontal drill sites are specified in section 5.6.c of the *Solid Waste Management Rule* (33CSR1). Prior to the acceptance and disposal of drill cuttings and associated drilling waste, a facility must apply for and obtain a special waste minor permit modification. A waste characterization form must be submitted to the DEP before a special waste permit will be considered, let alone issued for the disposal of these wastes.

On July 1, 2015, the WV DEP submitted the *Final Report on the Examination of Drill Cuttings and Related Environmental, Economic, and Technical Aspects Associated with Solid Waste Facilities in West Virginia* to the Joint Legislative Oversight Commission on Water Resources and to the Joint Committee on Government and Finance that found:

> *. . . little concern with regards to the leachate from drill cuttings that were placed in approved and permitted landfills, once that leachate was processed through a correctly operated treatment facility.*

The federal Occupational Safety and Health Administration (OSHA) under the United States Department of Labor is the agency that assures safe and healthful working conditions of working men and women. The regulation of health risks for landfill workers is outside the authority of the WVDEP.

In response to this comment, the DAQ will provide clarification and revise the name of the plan to the *WV State Plan Revision for the Control of Air Pollution from Municipal Solid Waste Landfills*.

COMMENT 2C:
Commenters state two additional major topics should be added to and addressed in detail within this draft plan for revisions of the state plan: dust and radon.

RESPONSE 2C:
The revision to the State Plan is limited to those air pollutants identified in the federal *Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills* (EGs) provided in 40CFR60, Subpart Cf and published August 29, 2016 [81 Fed. Reg. 59276]. The proposed revision to the State Plan meets the federal requirements of the EGs. The federal EGs require the State Plan address the reduction of landfill gas emissions which contain nonmethane organic compounds (NMOC) and methane gas to improve air quality and reduce the potential for public health and welfare effects associated with the exposure of these landfill gas emissions.

Wind-blown dust is outside the scope of the federal EGs upon which the WV State Plan is based. Although outside the scope of the revised State Plan, the DAQ regulates fugitive emissions under 45CSR17, *To Prevent and Control Particulate Matter Air Pollution from Materials Handling, Preparation, Storage and Other Sources of Fugitive Particulate Matter,* that prohibits fugitive particulate matter to be discharged beyond the boundary lines of the property on which the discharge originates, which causes or contributes to statutory air pollution. DWWM regulates dust emissions under 33CSR1 by requiring that facility designs include all reasonable means to control dust from the surface of access roads, including those controls addressed in the rules and regulations of the DAQ. 33CSR1 further requires that the facility be surrounded with rapidly growing trees, shrubbery, fencing, berms, or other appropriate means to screen it from the surrounding area and to provide a wind break. MSW landfills are also required to apply a daily cover.

West Virginia State Code §22-15-8(h) requires any solid waste facility taking drill cuttings and drilling waste to install radiation monitors by January 1, 2015. Radiation monitoring is required for all solid waste facilities that are permitted to accept drill cuttings and associated drilling waste for disposal by the DWWM *Solid Waste Management Rule* (33CSR1). Radioactivity monitoring is required for each load of drill cuttings that enters the landfill. If any load does not pass the initial screening and is found to contain levels of radioactivity above allowable threshold limits of radium 226 and radium 228, it is rejected from being placed in the landfill.

<u>Drill cuttings, dust creation, transport, employee risks</u>

COMMENT 2D:
Commenters state dust from haul roads and normal landfill operations do not carry the greatly increased risk from airborne dust derived from drill cuttings from deep horizontal wells.

RESPONSE 2D:
Please refer to the Response to Comment 2C above.

COMMENT 2E:
Commenters state that truckloads of moist drill waste will be "bulked-up" or solidified with a variety of added material to absorb some moisture, done at a distance away from the active working face of the dedicated cell where the waste will eventually be buried. In such work areas, there is a potential for the generation of airborne dust if appropriate dust suppression methods are not used. During every step of this multi-stage handling process, drill cutting material will be dropped, driven over, and further pulverized into dry dust which must be confined and controlled.

RESPONSE 2E:
Please refer to the Response to Comment 2C above.

COMMENT 2F:
Commenters state a significant portion of the shale oil and gas drilling wastes (drill cuttings) are fine-grained, clay or silt-sized particles and as such, when the waste materials dry out they are easily transported by wind. Unlike the typical wind-blown wastes and dust at a typical solid waste municipal landfill, these dusts contain heavy and radioactive metals as well as hydrocarbons and other constituents of concern that can have a negative effect on the landfill workers, the surrounding community, the environment, and the air shed.

RESPONSE 2F:
The federal Occupational Safety and Health Administration (OSHA) under the United States Department of Labor is the agency that assures safe and healthful working conditions of working men and women. The regulation of health risks for landfill workers is outside the authority of the WVDEP.

Please also refer to the Response to Comment 2C above.

COMMENT 2G:
Commenters state that in addition to the natural clay and silt-sized materials in the horizontal bore, which are extracted during the drilling phase, it is very likely that fine-grained silica sand and its dust (used to prop open the shale fractures during the completion process) will also be part of the shale oil and gas drilling waste stream. These silica dusts are dangerous and can represent significant health risks to the workers at the landfills and the surrounding community and environment. The draft rules are silent on these issues. They need to be specifically addressed.

RESPONSE 2G:
The Agency for Toxic Substances and Disease Registry's (ATSDR) published a draft report of a Toxicological Profile for Silica. The public comment period closed September 29, 2017. Although the report has not yet been finalized, the draft report represents the ATSDR's current thoughts. The ATSDR is a federal public health agency of the U.S. Department of Health and Human Services. Excerpts from this draft report are provided below.

Silica is a naturally occurring compound and is widespread in the environment. It is of particular concern in areas adjacent to crystalline silica mining, processing, and transporting facilities.

If you are exposed to silica, many factors determine whether you'll be harmed. These include how much you are exposed to (dose), how long you are exposed (duration), how often you are exposed (frequency), and how you are exposed (route of exposure). You must also consider the other chemicals you are exposed to and your age, sex, diet, family traits, lifestyle, and state of health.[1]

Health effects of c-silica and a-silica in people are found in workers exposed for long periods of time (typically ≥10 years) or with extremely heavy exposure over a short period of time (acute silicosis). There is no evidence that breathing small amounts of silica compounds found in the environment causes any health effects in humans. No health effects are shown to occur in humans from eating food or drinking water contaminated with c-silica or a-silica or from exposure of the skin to these compounds.[2]

Please also refer to the Response to Comments 2C above.

COMMENT 2H:
Commenters ask if there should not be a detailed discussion within the draft plan about the unique nature of wind-blown dust from the shale drilling wastes in the open cells, specifically on the working faces of the cells? The worker health issues are significantly different and greater for shale drilling wastes than most typical municipal solid waste (MSW) landfills receiving primarily household garbage; these issues are more on the order of asbestos wastes—asbestos wastes are double bagged to prevent the release of asbestos dust. Dust from shale drilling wastes may also have health implications. The shale drilling waste dusts are also cancer and lung disease hazards —both the natural rock itself and the resulting drill cuttings and the silica sands used to prop open the fracture sites after drilling is done. In addition, other materials introduced into the drilling and completion process may be hazardous if released as dust.

RESPONSE 2H:

The federal Occupational Safety and Health Administration (OSHA) under the United States Department of Labor is the agency that assures safe and healthful working conditions of working men and women. The regulation of health risks for landfill workers is outside the authority of the WVDEP.

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[1] U.S. Department of Health and Human Services; Agency for Toxics Substances & Disease Registry (ATSDR); Toxicological Profile for Silica; Draft for Public Comment; April 2017. Public Health Statement for Silica, page 1.
https://www.atsdr.cdc.gov/toxprofiles/TP.asp?id=1483&tid=290
[2] U.S. Department of Health and Human Services; Agency for Toxics Substances & Disease Registry (ATSDR); Toxicological Profile for Silica; Draft for Public Comment; April 2017. Public Health Statement for Silica; How Can Silica Affect My Health, page 3.
https://www.atsdr.cdc.gov/toxprofiles/TP.asp?id=1483&tid=290

Please refer to the Response to Comment 2G above.

COMMENT 2I:
Commenters ask how will the workers be protected from these potentially health-impacting dusts?

RESPONSE 2I:
The federal Occupational Safety and Health Administration (OSHA) under the United States Department of Labor is the agency that assures safe and healthful working conditions of working men and women. The regulation of health risks for landfill workers is outside the authority of the WVDEP.

COMMENT 2J:
Commenters ask how will wind-blown dust be controlled?

RESPONSE 2J:
DAQ legislative rule 45CSR17, *To Prevent and Control Particulate Matter Air Pollution from Materials Handling, Preparation, Storage and Other Sources of Fugitive Particulate Matter,* prohibits fugitive particulate matter to be discharged beyond the boundary lines of the property on which the discharge originates which causes or contributes to statutory air pollution. DAQ legislative rule 45CSR13, *Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Administrative Updates, Temporary Permits, General Permits, Permission to Commence Construction, and Procedures for Evaluation,* is the minor source air permitting rule. DAQ legislative rule 45CSR30, *Requirements for Operating Permits,* is the major source air permitting rule. The facility will control wind-blown dusts at MSW landfills by complying with the conditions of their air quality permit(s).

DWWM regulates dust emissions under 33CSR1 by requiring that facility designs include all reasonable means to control dust from the surface of access roads, including those controls addressed in the rules and regulations of the DAQ. 33CSR1 further requires that the facility be surrounded with rapidly growing trees, shrubbery, fencing, berms, or other appropriate means to screen it from the surrounding area and to provide a wind break. MSW landfills are also required to apply a daily cover.

COMMENT 2K:
Commenters ask what practices will be instituted to ensure that these wastes are not allowed to dry out and be blown around within the landfill property and also transported by wind beyond the landfill to nearby residents?

RESPONSE 2K:
Please see Response 2J above.

COMMENT 2L:
Commenters ask where will considerations for the need to monitor the dust and the possible requirement of respirators be placed in these rules?

RESPONSE 2L:
The DWWM *Solid Waste Management Rule*, 33CSR1, requires that all Solid Waste Facilities that accept drill cuttings and associated drilling waste for disposal must install fixed radiation detection equipment at the entrance to the facility.

Please also refer to Response to Comment 2I above.

COMMENT 2M:
Commenters ask if the WVDEP will require monitoring of radiological parameters in the fugitive dust both near drilling waste solidification process and the subsequent waste placement areas?

RESPONSE 2M:
W. Va. Code§22-15-8 requires that any solid waste facility taking drill cuttings and drilling waste must install radiation monitors by January 1, 2015. Radiation monitoring is required for all solid waste facilities that are permitted to accept drill cuttings and associated drilling waste for disposal by the DWWM *Solid Waste Management Rule* (33CSR1). Radioactivity monitoring is required for each load of drill cuttings that enters the landfill. If any load does not pass the initial screening and is found to contain levels of radioactivity above allowable threshold limits of radium 226 and radium 228, it is rejected from being placed in the landfill.

COMMENT 2N:
Commenters ask if WVDEP, DAQ is considering implementing a shale drilling waste management strategy similar to the requirements of the disposal of asbestos waste to reduce the risk of wind-blown hazardous dust from the shale drilling wastes at the landfills? If not, why not?

RESPONSE 2N:
The DAQ is not currently considering a shale drilling waste management strategy separate from what currently exists under the DWWM. As stated above, the purpose of DAQ's State Plan is to implement the MSW landfills EGs finalized by the EPA under 40CFR60, Subpart Cf to control air pollution emissions of NMOC and methane.

The DWWM is the DEP division that regulates solid waste management under legislative rule 33CSR1, *Solid Waste Management Rule*, and interpretive rule 33CSR1A, *Disposal of Completion or Production Waste* under the authority of West Virginia Code §22-15-1 et seq. 33CSR1 § 5.6 provides requirements for the disposal of drilling waste generated from horizontal drill sites. 33CSR1A provides guidance and direction to commercial solid waste facilities for the proper disposal of completion or production waste as a special solid waste generated from horizontal well sites, pursuant to the provisions of 33CSR1.

DWWM regulates dust emissions under 33CSR1 by requiring that facility designs include all reasonable means to control dust from the surface of access roads, including those controls addressed in the rules and regulations of the DAQ. 33CSR1 further requires that the facility be surrounded with rapidly growing trees, shrubbery, fencing, berms, or other appropriate means to screen it from the surrounding area and to provide a wind break. MSW landfills are also required to apply a daily cover. 33CSR1 prohibits landfills from receiving hazardous wastes as defined in 40 CFR § 261.3 that are not excluded from regulation as hazardous wastes under 40 CFR § 261.4(b).

DAQ regulates fugitive air emissions under 45CSR17. Hazardous air pollutants at MSW landfills are regulated under 40CFR63, Subpart AAAA, *National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills* and 45CSR34, *Emission Standards for Hazardous Air Pollutants.*

COMMENT 2O:
Commenter asks what testing the WVDEP undertaken to understand the nature of these potentially wind-blown dusts? How will they be managed?

RESPONSE 2O:

EPA established National Ambient Air Quality Standards (NAAQS) for criteria air pollutants, including fine particulate matter ($PM_{2.5}$) and ozone (of which volatile organic compounds (VOCs) and oxides of nitrogen (NO_X) are precursors) in order to protect human health and welfare from the cumulative impact from all sources of air pollution in a given geographical area.

The DAQ operates air monitoring sites at various locations around the state. EPA established regulations and guidance that specifies the siting criteria, measurement requirements and quality assurance objectives for all air monitoring sites. Monitoring stations use EPA-approved Federal Reference Methods (FRMs) or Federal Equivalent Methods (FEMs) to collect data for direct comparison to the NAAQS. DAQ uses the collected data to: assess the extent of pollution; support implementation of air quality goals and standards; evaluate the effectiveness of emission control strategies; and support other purposes. While most of the DAQ's monitoring program is focused on NAAQS assessment, other types of monitors, such as $PM_{2.5}$ speciation trends network samplers and air toxics monitors are also operated.

DEP conducted the *W.Va. Code §22-6A-12(e) Noise, Light, Dust, and Volatile Organic Compounds Study* (noise, light, dust and VOC) and submitted it to the WV Legislature on May 28, 2013. DEP conducted the *W.Va. Code Air Quality Impacts Occurring from Horizontal Well Drilling and Related Activities* and submitted it to the WV Legislature on June 28, 2013. DEP conducted the *Final Report on the Examination of Drill Cuttings and Related Environmental, Economic, and Technical Aspects Associated with Solid Waste Facilities in West Virginia* and submitted it to the Joint Committee on Government and Finance and Joint Legislative Oversight Commission on Water Resources on July 1, 2015.

Please also refer to the Response to Comment 2N.

Radon-222 gas: its creation, detection and health concerns

COMMENT 2P:
Commenters state we have never knowingly buried very large quantities of known low-level radioactive waste in a generic, municipal solid waste landfill originally designed for household garbage. The prudence or danger of doing so might not be known for generations. During the past six years or so, about 850,000 tons of drill waste have been buried in just the Wetzel County Landfill alone. Besides the constant dust concerns, since that waste contains significant amounts of Radium 226 and as a mother isotope will forever be decaying into the daughter element, a noble gas, called Radon 222. Radon's half-life is only 3.8 days so it might not seem to be very consequential. However, the half-life of the parent isotope Radium 226 is 1600 years. And, Radon is known to be the second leading cause of lung cancer, behind cigarette smoking.

RESPONSE 2P:
The revision to the State Plan is limited to those air pollutants identified in the federal *Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills* provided in 40CFR60, Subpart Cf and published August 29, 2016 [81 Fed. Reg. 59276]. The proposed revision to the State Plan meets the federal requirements of the EGs. The federal EGs require the State Plan address the reduction of landfill gas emissions which contain nonmethane organic compounds (NMOC) and methane gas to improve air quality and reduce the potential for public health and welfare effects associated with the exposure of these landfill gas emissions. The proposed revision to the State Plan is not intended to address the types of wastes that may be accepted by MSW landfills. Commercial solid waste facilities may lawfully receive drill cutting and drilling waste generated from horizontal well sites in accordance with West Virginia Code §22-15-8

The DEP Division of Water & Waste Management (DWWM) regulates solid waste, under legislative rule 33CSR1, *Solid Waste Management Rule,* and interpretive rule 33CSR1A, *Disposal of Completion or Production Waste.* The solid waste management rule establishes requirements for the siting, financial assurance, installation, establishment, construction, design, groundwater monitoring, modification, operation, permitting, closure and post-closure care of any solid waste facility that processes, recycles, composts, transfers or disposes of solid waste pursuant to W. Va. Code §22-15-1 et seq. The disposal of completion or production waste rule provides guidance and direction to commercial solid waste facilities for the proper disposal of completion or production waste as a special solid waste generated from horizontal well sites, pursuant to the provisions of the 33CSR1.

"Municipal Solid Waste", as defined in 33CSR1 §2.79, means any household or commercial solid wastes as defined in 33CSR1 and any sludge from a waste treatment plant or a water supply treatment plant. Drill cuttings and associated drilling wastes are regulated as special solid waste. The WVDEP allows such waste to be disposed of at permitted municipal solid waste facilities within the state.

Please also refer to the Response to Comment 2C above.

COMMENT 2Q:
Commenters state many landfills already have a gas collection and control system, a GCCS. These systems are designed to capture and thermally reduce or destroy the routine methane and other forms of volatile and other organic gases and semi-volatile compounds normally found in MSW landfills. However, since shale oil and gas drilling wastes are radioactive they also produce radon gas. Radon gas moves through the cells with the other gases and into the gas collection system or leaks out of the landfill with methane but, because it is a noble gas, unlike methane and the other organic gases, radon does not burn in the flare used on a gas collection system. Radon is heavier than air and will lay in low areas around the landfill unless it is disturbed by wind.

RESPONSE 2Q:
Please refer to Response to Comment 2P above.

COMMENT 2R:
Commenters asks what studies has the WVDEP or other state agencies undertaken to determine the volumes of radon gas that are or will be emanating from the landfill areas dedicated to the disposal of shale gas drill cuttings?

RESPONSE 2R:
The revision to the State Plan is limited to those air pollutants identified in the federal *Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills* provided in 40CFR60, Subpart Cf and published August 29, 2016 [81 Fed. Reg. 59276]. The proposed revision to the State Plan meets the federal requirements of the EGs. The federal EGs require the State Plan address the reduction of landfill gas emissions which contain nonmethane organic compounds (NMOC) and methane gas to improve air quality and reduce the potential for public health and welfare effects associated with the exposure of these landfill gas emissions. West Virginia Code §22-5-4(4) does not allow any legislative rule or program of the director to be more stringent than any federal rule except to the limited extent that the director first makes a specific written finding.

This comment is outside the scope of the proposed WV State Plan; therefore, no response is required.

COMMENT 2S:
Commenters ask what levels of radon already exist in the buildings surrounding the landfills that are accepting shale oil and gas drilling wastes?

RESPONSE 2S:
DAQ regulates ambient air (outside) and not indoor air quality (inside buildings). This comment is outside the scope of the proposed WV State Plan; therefore, no response is required.

COMMENT 2T:
Commenters ask what measures landfill operators should take to manage the release of radon gas into the air shed?

RESPONSE 2T:
Prior to the acceptance and disposal of drill cuttings and associated drilling waste, the owner or operator must apply for and obtain a special waste minor permit modification in accordance with the requirements of 33CSR1, *Solid Waste Management Rule* and operate the landfill in accordance with 33CSR1 and 33CSR1A and their permit requirements.

COMMENT 2U:
Commenters ask what health precautions should be undertaken to insure workers are not exposed to injurious levels of radon gas? The draft rules are silent on this topic and it needs to be addressed.

RESPONSE 2U:
Please also refer to the Response to Comment 2I above.

COMMENT 2V:
Commenters ask how will landfill gas management efforts be modified to address the issue of radon gas?

RESPONSE 2V:
The revision to the State Plan is limited to those air pollutants identified in the federal *Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills* provided in 40CFR60, Subpart Cf and published August 29, 2016 [81 Fed. Reg. 59276]. The proposed revision to the State Plan meets the federal requirements of the EGs. The federal EGs require the State Plan address the reduction of landfill gas emissions which contain nonmethane organic compounds (NMOC) and methane gas to improve air quality and reduce the potential for public health and welfare effects associated with the exposure of these landfill gas emissions. West Virginia Code §22-5-4(4) does not allow any legislative rule or program of the director to be more stringent than any federal rule except to the limited extent that the director first makes a specific written finding.

This comment is outside the scope of the proposed WV State Plan; therefore, no response is required.

COMMENT 2W:
Commenters ask if the WVDEP will require monitoring for radon gas in the landfill gas management system?

RESPONSE 2W:
The revision to the State Plan is limited to those air pollutants identified in the federal *Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills* provided in 40CFR60, Subpart Cf and published August 29, 2016 [81 Fed. Reg. 59276]. The proposed revision to the State Plan meets the federal requirements of the EGs. The federal EGs require the State Plan

address the reduction of landfill gas emissions which contain nonmethane organic compounds (NMOC) and methane gas to improve air quality and reduce the potential for public health and welfare effects associated with the exposure of these landfill gas emissions. West Virginia Code §22-5-4(4) does not allow any legislative rule or program of the director to be more stringent than any federal rule except to the limited extent that the director first makes a specific written finding.

West Virginia Code §22-15-8(h) requires any solid waste facility taking drill cuttings and drilling waste to install radiation monitors by January 1, 2015. Radiation monitoring is required for all solid waste facilities that are permitted to accept drill cuttings and associated drilling waste for disposal by the DWWM *Solid Waste Management Rule* (33CSR1). Radioactivity monitoring is required for each load of drill cuttings that enters the landfill. If any load does not pass the initial screening and is found to contain levels of radioactivity above allowable threshold limits of radium 226 and radium 228, it is rejected from being placed in the landfill.

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August 16, 2018

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Charleston, WV 25304

Submitted electronically: Richard.a.boehm@wv.gov

Re: Proposed Revision to the West Virginia Section 111(d) State Plan, Control of Air Pollution from Municipal Solid Waste Landfills

Dear Mr. Durham:

The National Waste & Recycling Association (NWRA) and the Solid Waste Association of North America (SWANA) are pleased to provide the following comments to the West Virginia Department of Environmental Protection (DEP), Division of Air Quality (DAQ) in response to DAQ's notice about proposed revisions to the West Virginia Section 111(d) State Plan on the Control of Air Pollution from Municipal Solid Waste Landfills.

In response to USEPA's promulgation of Subpart Cf, a group of industry petitioners, including NWRA and SWANA, filed an administrative petition requesting that USEPA convene a proceeding to correct certain fundamental flaws in the rule and to stay the effectiveness of Subpart Cf until such time as USEPA makes such necessary revisions to the rule. The same group of industry petitioners has filed a judicial challenge to Subpart Cf that is currently before the United States Appeals Court for the District of Columbia Circuit (DC Circuit).

On May 5, 2017, USEPA granted industry's petition for reconsideration. USEPA plans to align reconsideration of the Subpart Cf rules with the risk technology review (RTR) for the Landfill National Emission Standards for HAPs (NESHAPs) that is currently underway. The USEPA is under Court Order to complete the RTR and issue rulemaking by March 2020. Considering the pending reconsideration effort and the current RTR, which may result in revisions to the rule, **DAQ should consider delaying any action to revise the state's CAA Section 111(d) plan until the reconsideration process is completed and**

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pending administrative petitions and legal challenges to Subpart Cf are resolved. This is consistent with the actions of the vast majority of other states.

Although NWRA and SWANA believes that no action is warranted at this time, in the event that DAQ nevertheless moves forward with revisions to the state's CAA Section 111(d) plan, we respectfully request that DAQ consider the following issues:

1. The proposed state plan incorrectly classifies sites as being "new" subject to NSPS Subpart XXX when in fact they are "existing" sites subject to EG Subpart Cf. A construction permit that increases the design capacity of the landfill may permit multiple cells for construction; a modification occurs when construction commences on the first cell. USEPA has clarified that cell construction, by itself, does not constitute "modification."

   Since construction at many of the landfills on the State's list commenced *prior to* July 17, 2014, the landfills are "existing sites" and not subject to NSPS Subpart XXX. Both subparts WWW & XXX clearly indicate permits issued by the state agency responsible for regulating the landfill are based on the maximum design capacity of the landfill (see §60.757 (a)(2) and 60.767(a)(2)). If any landfill received a permit to expand the design capacity of the landfill *after* July 17, 2014, then the landfill would be subject to NSPS XXX - once construction on the permitted expansion commences.

   In addressing questions on this matter in the July 2016 Response to Public Comments for Subparts XXX and Cf, USEPA referred to the 1998 clarifications to Subparts WWW and Cc, noting that:

   > *[F]or 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.* (63 FR 32744)

   The attached table clarifies applicability status of MSW Landfills based on the most recent state-issued permits that authorized increases in maximum design capacity.

2. **DAQ's rule implementing Subpart Cf must not be more stringent than the portion implementing Subpart XXX** – While USEPA promulgated revised emission guidelines in Subpart Cf, USEPA published revised New Source Performance Standards (NSPS) at Subpart XXX. Subparts Cf and XXX contain nearly identical compliance requirements even though they apply to existing and new sources, respectively. Although states have flexibility to implement Subpart Cf through the adoption of regulations and the promulgation of a state plan, the CAA makes clear that emission guidelines affecting existing sources should not be more stringent than NSPS affecting new sources.

3. **The effective date of any rule implementing Subpart Cf should occur after USEPA has approved the DAQ State Plan pursuant to CAA Section 111(d) or 40 C.F.R. Part 60, Subpart B** – To avoid confusion related to the effective date of the West Virginia rule implementing Subpart Cf, DAQ should adopt regulatory text that states that the revisions will not take effect until

USEPA approves West Virginia's plan pursuant to CAA Section 111(d) and 40 C.F.R. Part 60, Subpart B.

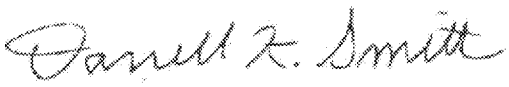
The West Virginia legislative rule 45 C.S.R. 23 – Control of Air Pollution from Municipal Solid Waste Landfills appears to be inconsistent with the compliance timelines expressed in the EG Subpart Cf rules. Rule 45 C.S.R 23 requires a site subject to the rule to submit its initial design capacity report and NMOC emission rate report no later than one year from the effective date of the rule (see 45 C.S.R. 23, 7.9.a and 7.9.c). 45 C.S.R. 23 was effective June 1, 2018, therefore the initial compliance reports are due by June 1, 2019. 40 CFR 60 Subpart Cf clearly states these initial compliance reports are due no later than 90 days after the effective date of EPA approval of the state's plan (see 60.38f). Depending on when EPA approves the West Virginia State Plan, the compliance due dates could be more or less stringent than EG Subpart Cf requirements.

4. **If DAQ incorporates any aspect of Subpart Cf by reference, DAQ should adopt language stating that future amendments to Subpart Cf carry through to the State Rule** – To ensure consistency with any aspect of Subpart Cf that is incorporated by reference, DAQ should specify that such incorporation encompasses any future changes, additions, or revisions to the federal rule.

5. **DAQ should include an Automatic Rescission Clause** – For the reasons stated above, there is a chance that some or all aspects of Subpart Cf will be stayed, repealed, or revised. DAQ's rule implementing Subpart Cf should be void to the same extent Subpart Cf is rendered unenforceable.

Thank you for this opportunity to provide input to DAQ as the Agency considers revisions to its state rules regulating existing landfills.

Very truly yours,



Darrell K. Smith
President & CEO
National Waste & Recycling Association

David Biderman
Executive Director & CEO
Solid Waste Association of North America

Att: Table 1 - NSPS Subpart XXX/EG Subpart Cf Applicability

Table 1 - NSPS SUBPART XXX / EG SUBPART Cf APPLICABILITY – WEST VIRGINIA MSW LANDFILLS		
Facility Name	**Date of Most Recent Permitted Increase in Design Capacity**	**Is the facility subject to Subpart Cf or XXX?**
Charleston Landfill	1995	Cf
Disposal Service, Inc.	Prior to 2000 (not expected to commence construction until 2022)	Cf
Meadowfill	2012	Cf
L.C.S Services aka North Mountain	1991	Cf
Northwestern Landfill	1996 (50,000 Mg). Phase 2 (1.620 Mil Mg) is a proposed future area that has not yet commenced construction	Cf
S&S Landfill	2004 (Phase 3D). Phases 4-7 are proposed future areas on which construction has not yet commenced	Cf

Ohio Valley Environmental Coalition

Supporting Organized Voices and Empowered Communities Since 1987

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August 20, 2018

Re: Public Comments on West Virginia State Plan Revision for Municipal Solid Waste Landfills

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August 20, 2018

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Two major topics should be added to the draft air quality regulations for all landfills which are receiving any drill waste products from horizontal shale gas wells.

SECTION ONE New waste-stream and landfill recent modifications

Over the past few years a number of West Virginia municipal solid waste landfills started taking in large quantities of a new, not fully characterized waste material, which is removed from many of the natural gas horizontal wells in the tri-state area. In order to comply the new solid waste disposal requirements, many of these landfills modified and expanded their operations. They added special dedicated cells for drilling waste with separate leachate collection systems. These drill cuttings and related waste from horizontal wells have unique characteristics, and since this type of waste has never before been buried in Municipal Solid Waste Landfills anywhere in the state, there are unknown risks of from burying these wastes, both in the short- and long-term for environmental and public health. The health risks are much more pronounced for the landfill workers.

The two major air pollution problems with low level radioactive waste contained within the horizontal bore shale material are the real possibility of air borne dusts and the ever-present creation of Radon-222 which is derived from the presence of Radium 226 in the shale cuttings. Therefore, two additional, major topics should be added to and addressed in detail within this draft plan for revisions of the state plan: DUST and RADON.

SECTION TWO Drill cuttings, dust creation, transport, employee risks

Control and management of dust is a constant chore at any municipal solid waste (MSW) landfill. However, the routine dust from haul roads and normal landfill operations, which are receiving and disposing primarily of household trash and miscellaneous waste, do not carry the greatly increased risk from airborne dust derived from drill cuttings from deep horizontal wells.

When the drill cuttings leave the well pad whether by enclosed-roll-off trucks or covered dump truck, they usually have a high initial moisture content from the ages-old formation brine surrounding the shale and also from any drill muds and other fluids used during the drilling process. Quite often these truckloads of moist drill waste will be "bulked-up" or solidified with a variety of added material to absorb some moisture. This operation will be done at a distance away from the active working face of the dedicated cell where the waste will eventually be buried. In such work areas, there is a potential for the generation of airborne dust if appropriate dust suppression methods are not used.

At a designated "bulking-up" location the material will be unloaded, mixed, combined and blended, and then reloaded onto other larger trucks to be taken to the active cell to be again unloaded and pushed by a dozer into the final location. During every step of this multi-stage handling process, drill cutting material will be dropped, driven over, and further pulverized into dry dust which must be confined and controlled.

A significant portion of the shale oil and gas drilling wastes (drill cuttings) are fine-grained, clay or silt-sized particles. The larger-sized shale rock cuttings will quickly weather to the natural clays and silts of the parent materials. As such, when the waste materials dry out, they are easily transported by wind. However, unlike the typical wind-blown wastes and dust at a typical solid waste municipal landfill, these dusts contain heavy and radioactive metals as well as hydrocarbons and other constituents of concern that can have a negative effect on the landfill workers, the surrounding community, the environment, and the air shed.

In addition to the natural clay and silt-sized materials in the horizontal bore, which are extracted during the drilling phase, it is very likely that fine-grained silica sand and its dust (used to prop open the shale fractures during the completion process) will also be part of the shale oil and gas drilling waste stream. These silica dusts are also dangerous and can represent significant health risks to the workers at the landfills and the surrounding community and environment. The draft rules are silent on these issues. They need to be specifically addressed.

Should there not be a detailed discussion within the draft plan about the unique nature of wind-blown dust from the shale drilling wastes in the open cells, specifically on the working faces of the cells? The worker health issues are significantly different and greater for shale drilling wastes than most typical municipal solid waste (MSW) landfills receiving primarily household garbage; these issue are more on the order of asbestos wastes—asbestos wastes are double bagged to prevent the release of asbestos dust. Dust from shale drilling wastes may also have health implications. The shale drilling waste dusts are also cancer and lung disease hazards —both the natural rock itself and the resulting drill cuttings and the silica sands used to prop open the fracture sites after drilling is done. In addition, other materials introduced into the drilling and completion process may be hazardous if released as dust.

Specific questions on dust creation and control

1. How will the workers be protected from these potentially health-impacting dusts?
2. How will wind-blown dust be controlled?
3. What practices will be instituted to ensure that these wastes are not allowed to dry out and be blown around within the landfill property and also transported by wind beyond the landfill to nearby residents?

4. Where will considerations for the need to monitor the dust and the possible requirement of respirators be placed in these rules?
5. Will the WVDEP require monitoring of radiological parameters in the fugitive dust both near drilling waste solidification process and the subsequent waste placement areas?
6. Is WVDEP, DAQ considering implementing a shale drilling waste management strategy similar to the requirements of the disposal of asbestos waste to reduce the risk of wind-blown hazardous dust from the shale drilling wastes at the landfills? If not, why not?
7. What testing has the WVDEP undertaken to understand the nature of these potentially wind-blown dusts? How will they be managed?

SECTION THREE Radon-222 gas: its creation, detection and health concerns

As mentioned in SECTION ONE above, we have never knowingly buried very large quantities of known low-level radioactive waste in a generic, municipal solid waste landfill originally designed for household garbage. The prudence or danger of doing so might not be known for generations. During the past six years or so, about 850,000 tons of drill waste have been buried in just the Wetzel County Landfill alone. Besides the constant dust concerns, since that waste contains significant amounts of Radium 226 and as a mother isotope will forever be decaying into the daughter element, a noble gas, called Radon 222. Radon's half-life is only 3.8 days so it might not seem to be very consequential. However, the half-life of the parent isotope Radium 226 is 1600 years. And, Radon is known to be the second leading cause of lung cancer, behind cigarette smoking.

Many landfills already have a gas collection and control system, a GCCS. These systems are designed to capture and thermally reduce or destroy the routine methane and other forms of volatile and other organic gases and semi-volatile compounds normally found in MSW landfills. However, since shale oil and gas drilling wastes are radioactive they also produce radon gas. Radon gas moves through the cells with the other gases and into the gas collection system or leaks out of the landfill with methane but, because it is a noble gas, unlike methane and the other organic gases, radon does not burn in the flare used on a gas collection system. Radon is heavier than air and will lay in low areas around the landfill unless it is disturbed by wind.

Specific questions on Radon measuring and control

8. What studies has the WVDEP or other state agencies undertaken to determine the volumes of radon gas that are or will be emanating from the landfill areas dedicated to the disposal of shale gas drill cuttings?
9. What levels of radon already exist in the buildings surrounding the landfills that are accepting shale oil and gas drilling wastes?
10. What measures should the landfill operators take to manage the release of radon gas into the air shed?
11. What health precautions should be undertaken to insure that the workers are not exposed to injurious levels of radon gas? The draft rules are silent on this topic and it needs to be addressed.
12. How will landfill gas management efforts be modified to address the issue of radon gas?
13. Will the WVDEP require monitoring for radon gas in the landfill gas management system?

Appendix C
West Virginia State Code

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W. Va. Code § 22-5-1 et seq.

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CHAPTER 22. ENVIRONMENTAL RESOURCES.

ARTICLE 5. AIR POLLUTION CONTROL.

§22-5-1. Declaration of policy and purpose.

It is hereby declared to be the public policy of this state and the purpose of this article to achieve and maintain such levels of air quality as will protect human health and safety, and to the greatest degree practicable, prevent injury to plant and animal life and property, foster the comfort and convenience of the people, promote the economic and social development of this state and facilitate the enjoyment of the natural attractions of this state.

To these ends it is the purpose of this article to provide for a coordinated statewide program of air pollution prevention, abatement and control; to facilitate cooperation across jurisdictional lines in dealing with problems of air pollution not confined within single jurisdictions; to assure the economic competitiveness of the state by providing for the timely processing of permit applications and other authorizations under this article; and to provide a framework within which all values may be balanced in the public interest.

Further, it is the public policy of this state to fulfill its primary responsibility for assuring air quality pursuant to the Federal Clean Air Act, as amended.

§22-5-2. Definitions.

The terms used in this article are defined as follows:

(1) "Air pollutants" means solids, liquids or gases which, if discharged into the air, may result in a statutory air pollution.

(2) "Board" means the air quality board continued pursuant to the provisions of article two, chapter twenty-two-b of this code.

(3) "Director" means the director of the Division of Environmental Protection or such other person to whom the director has delegated authority or duties pursuant to sections six or eight, article one, chapter twenty-two of this code.

(4) "Discharge" means any release, escape or emission of air pollutants into the air.

(5) "Person" means any and all persons, natural or artificial, including the State of West Virginia or any other state, the United States of America, any municipal, statutory, public or private corporation organized or existing under the laws of this or any other state or country, and any firm, partnership or association of whatever nature.

(6) "Statutory air pollution" means and is limited to the discharge into the air by the act of man of substances (liquid, solid, gaseous, organic or inorganic) in a locality, manner and amount as to be injurious to human health or welfare, animal or plant life, or property, or which would interfere with the enjoyment of life or property.

§22-5-3. Causing statutory pollution unlawful; article not to provide persons with additional legal remedies.

It is unlawful for any person to cause a statutory air pollution, to violate the provisions of this article, to violate any rules promulgated pursuant to this article to operate any facility subject to the permit requirements of the director without a valid permit, or to knowingly misrepresent to any person in the State of West Virginia that the sale of air pollution control equipment will meet the standards of this article or any rules promulgated pursuant to this article. Nothing contained in this article provides any person with a legal remedy or basis for damages or other relief not otherwise available to such person immediately prior to enactment of this article.

§22-5-4. Powers and duties of director; and legal services; rules.

(a) The director is authorized:

(1) To develop ways and means for the regulation and control of pollution of the air of the state;

(2) To advise, consult and cooperate with other agencies of the state, political subdivisions of the state, other states, agencies of the federal government, industries, and with affected groups in furtherance of the declared purposes of this article;

(3) To encourage and conduct such studies and research relating to air pollution and its control and abatement as the director may deem advisable and necessary;

(4) To promulgate legislative rules in accordance with the provisions of chapter twenty-nine-a of this code not inconsistent with the provisions of this article, relating to the control of air pollution: *Provided,* That no rule of the director shall specify a particular manufacturer of equipment nor a single specific type of construction nor a particular method of compliance except as specifically required by the "Federal Clean Air Act," as amended, nor shall any such rule apply to any aspect of an employer-employee relationship: *Provided, however,* That no legislative rule or program of the director hereafter adopted shall be any more stringent than any federal rule or program except to the limited extent that the director first makes a specific written finding for any such departure that there exists scientifically supportable evidence for such rule or program reflecting factors unique to West Virginia or some area thereof;

(5) To enter orders requiring compliance with the provisions of this article and the rules lawfully promulgated hereunder;

(6) To consider complaints, subpoena witnesses, administer oaths, make investigations and hold hearings relevant to the promulgation of rules and the entry of compliance orders hereunder;

(7) To encourage voluntary cooperation by municipalities, counties, industries and others in preserving the purity of the air within the state;

(8) To employ personnel, including specialists and consultants, purchase materials and supplies, and enter into contracts necessary, incident or convenient to the accomplishment of the purpose of this article;

(9) To enter and inspect any property, premise or place on or at which a source of air pollutants is located or is being constructed, installed or established at any reasonable time for the purpose of ascertaining the state of compliance with this article and rules promulgated under the provisions of this article. No person shall refuse entry or access to any authorized representative of the director who requests entry for purposes of inspection, and who presents appropriate credentials; nor shall any person obstruct, hamper or interfere with any such inspection: *Provided,*That nothing contained in this article eliminates any obligation to follow any process that may be required by law;

(10) Upon reasonable evidence of a violation of this article, which presents an imminent and serious hazard to public health, to give notice to the public or to that portion of the public which is in danger by any and all appropriate means;

(11) To cooperate with, receive and expend money from the federal government and other sources; and the director may cooperate with any public or private agency or person and receive therefrom and on behalf of the state gifts, donations, and contributions, which shall be deposited to the credit of the "Air Pollution Education and Environment Fund" which is hereby continued in the state Treasury. The moneys collected pursuant to this article which are directed to be deposited in the air pollution education and environment fund must be deposited in a separate account in the state Treasury and expenditures for purposes set forth in this article are not authorized from collection but are to be made only in accordance with appropriation and in accordance with the provisions of article three, chapter twelve of this code and upon fulfillment of the provisions set forth in article two, chapter five-a of this code. Amounts collected which are found from time to time to exceed the funds

needed for the purposes set forth in this article may be transferred to other accounts or funds and redesignated for other purposes by appropriation of the Legislature;

(12) To represent the state in any and all matters pertaining to plans, procedures and negotiations for interstate compacts in relation to the control of air pollution;

(13) To appoint advisory councils from such areas of the state as he or she may determine. The members shall possess some knowledge and interest in matters pertaining to the regulation, control and abatement of air pollution. The council may advise and consult with the director about all matters pertaining to the regulation, control and abatement of air pollution within such area;

(14) To require any and all persons who are directly or indirectly discharging air pollutants into the air to file with the director such information as the director may require in a form or manner prescribed by him or her for such purpose, including, but not limited to, location, size and height of discharge outlets, processes employed, fuels used and the nature and time periods of duration of discharges. Such information shall be filed with the director, when and in such reasonable time, and in such manner as the director may prescribe;

(15) To require the owner or operator of any stationary source discharging air pollutants to install such monitoring equipment or devices as the director may prescribe and to submit periodic reports on the nature and amount of such discharges to the director;

(16) To do all things necessary and convenient to prepare and submit a plan or plans for the implementation, maintenance and enforcement of the "Federal Clean Air Act," as amended:*Provided,* That in preparing and submitting each such plan the director shall establish in such plan that such standard shall be first achieved, maintained and enforced by limiting and controlling emissions of pollutants from commercial and industrial sources and locations and shall only provide in such plans for limiting and controlling emissions of pollutants from private dwellings and the curtilage thereof as a last resort: *Provided, however,* That nothing herein contained affects plans for achievement, maintenance and enforcement of motor vehicle emission standards and of standards for fuels used in dwellings;

(17) To promulgate legislative rules, in accordance with the provisions of chapter twenty-nine-a of this code, providing for the following:

(A) Procedures and requirements for permit applications, transfers and modifications and the review thereof;

(B) Imposition of permit application and transfer fees;

(C) Establishment of criteria for construction, modification, relocation and operating permits;

(D) Imposition of permit fees and of certificate fees: *Provided,* That any person subject to operating permit fees pursuant to section twelve of this article is exempt from imposition of the certificate fee; and

(E) Imposition of penalties and interest for the nonpayment of fees.

The fees, penalties and interest shall be deposited in a special account in the state Treasury designated the "Air Pollution Control Fund", formerly the "Air Pollution Control Commission Fund", which is hereby continued to be appropriated for the sole purpose of paying salaries and expenses of the board, the office of air quality and their employees to carry out the provisions of this article: *Provided,* That the fees, penalties and interest collected for operating permits required by section twelve of this article shall be expended solely to cover all reasonable direct and indirect costs required to administer the operating permit program. The fees collected pursuant to this subdivision must be deposited in a separate account in the state Treasury and expenditures for purposes set forth in this article are not authorized from collections but are to be made only in

accordance with appropriation and in accordance with the provisions of article three, chapter twelve of this code and upon fulfillment of the provisions set forth in article two, chapter five-a of this code. Amounts collected which are found from time to time to exceed the funds needed for the purposes set forth in this article may be transferred to other accounts or funds and redesignated for other purposes by appropriation of the Legislature: *Provided, however,* That for fiscal year one thousand nine hundred ninety-three, expenditures are permitted from collections without appropriation by the Legislature; and

(18) Receipt of any money by the director as a result of the entry of any consent order shall be deposited in the state Treasury to the credit of the air pollution education and environment fund.

(b) The Attorney General and his or her assistants and the prosecuting attorneys of the several counties shall render to the director without additional compensation such legal services as the director may require of them to enforce the provisions of this article.

§22-5-5. Issuance of cease and desist orders by director; service; permit suspension, modification and revocatic appeals to board.

If, from any investigation made by the director or from any complaint filed with him or her, the director is of the opinion that a person is violating the provisions of this article, or any rules promulgated pursuant thereto, he or she shall make and enter an order directing the person to cease and desist the activity, unless the director determines the violation is of a minor nature or the violation has been abated. The director shall fix a reasonable time in such order by which the activity must stop or be prevented. The order shall contain the findings of fact upon which the director determined to make and enter the order.

If, after any investigation made by the director, or from any complaint filed with him or her, the director is of the opinion that a permit holder is violating the provisions of this article, or any rules promulgated pursuant thereto, or any order of the director, or any provision of a permit, the director may issue notice of intent to suspend, modify or revoke and reissue such permit. Upon notice of the director's intent to suspend, modify or revoke a permit, the permit holder may request a conference with the director to show cause why the permit should not be suspended, modified or revoked. The request for conference must be received by the director within fifteen days following receipt of notice. After conference or fifteen days after issuance of notice of intent, if no conference is requested, the director may enter an order suspending, modifying or revoking the permit and send notice to the permit holder. Such order is a cease and desist order for purposes of administrative and judicial review and shall contain findings of fact upon which the director determined to make and enter the order. If an appeal of the director's order is filed, the order of the director shall be stayed from the date of issuance pending a final decision of the board.

The director shall cause a copy of any such order to be served upon the person by registered or certified mail or by any proper law-enforcement officer.

Any person upon whom a copy of the final order has been served may appeal such order to the air quality board pursuant to the provisions of article one, chapter twenty-two-b of this code.

§22-5-6. Penalties; recovery and disposition; duties of prosecuting attorneys.

(a) Any person who violates any provision of this article, any permit or any rule or order issued pursuant to this article or article one, chapter twenty-two-b of this code is subject to a civil penalty not to exceed $10,000 for each day of such violation, which penalty shall be recovered in a civil action brought by the director in the name of the State of West Virginia in the circuit court of any county wherein the person resides or is engaged in the activity complained of or in the circuit court of Kanawha County. The amount of the penalty shall be fixed by the court without a jury:*Provided,* That any person is not subject

to civil penalties unless the person has been given written notice thereof by the director: *Provided, however,* That for the first such minor violation, if the person corrects the violation within the time as was specified in the notice of violation issued by the director, no civil penalty may be recovered: *Provided further,* That if the person fails to correct a minor violation or for any serious or subsequent serious or minor violation, the person is subject to civil penalties imposed pursuant to this section from the first day of the violation notwithstanding the date of the issuance or receipt of the notice of violation. The director shall, by rule subject to the provisions of chapter twenty-nine-a of this code, determine the definitions of serious and minor violations. The amount of any penalty collected by the director shall be deposited in the general revenue of the state Treasury according to law.

(b)(1) Any person who knowingly misrepresents any material fact in an application, record, report, plan or other document filed or required to be maintained under the provisions of this article or any rules promulgated under this article is guilty of a misdemeanor and, upon conviction thereof, shall be fined not more than $25,000 or imprisoned in the county jail not more than six months or both fined and imprisoned: *Provided,* That if the violation occurs on separate days or is continuing in nature, the fine shall be no more than $25,000 for each day of such violation.

(2) Any person who knowingly violates any provision of this article, any permit or any rule or order issued pursuant to this article or article one, chapter twenty-two-b of this code is guilty of a misdemeanor and, upon conviction thereof, shall be fined not more than $25,000 for each day of such violation or imprisoned in the county jail not more than one year or both fined and imprisoned.

(c) Upon a request in writing from the director it is the duty of the Attorney General and the prosecuting attorney of the county in which any such action for penalties accruing under this section or section seven of this article may be brought to institute and prosecute all such actions on behalf of the director.

(d) For the purpose of this section, violations on separate days are separate offenses.

§22-5-7. Applications for injunctive relief.

The director may seek an injunction against any person in violation of any provision of this article or any permit, rule or order issued pursuant to this article or article one, chapter twenty-two-b of this code. In seeking an injunction, it is not necessary for the director to post bond nor to allege or prove at any stage of the proceeding that irreparable damage will occur if the injunction is not issued or that the remedy at law is inadequate. An application for injunctive relief brought under this section or for civil penalty brought under section six of this article may be filed and relief granted notwithstanding the fact that all administrative remedies provided in this article have not been exhausted or invoked against the person or persons against whom such relief is sought.

In any action brought pursuant to the provisions of section six or of this section, the state, or any agency of the state which prevails, may be awarded costs and reasonable attorney's fees.

§22-5-8. Emergencies.

Whenever air pollution conditions in any area of the state become such as, in the opinion of the director, to create an emergency and to require immediate action for the protection of the public health, the director may, with the written approval of the Governor, so find and enter such order as it deems necessary to reduce or prevent the emission of air pollutants substantially contributing to such conditions. In any such order the director shall also fix a time, not later than twenty-four hours thereafter, and place for a hearing to be held before it for the purpose of investigating and determining the factors causing or

contributing to such conditions. A true copy of any such order shall be served upon persons whose interests are directly prejudiced thereby in the same manner as a summons in a civil action may be served, and a true copy of such order shall also be posted on the front door of the courthouse of the county in which the alleged conditions originated. All persons whose interests are prejudiced or affected in any manner by any such order shall have the right to appear in person or by counsel at the hearing and to present evidence relevant to the subject of the hearing. Within twenty-four hours after completion of the hearing the director shall affirm, modify or set aside said order in accordance and consistent with the evidence adduced. Any person aggrieved by such action of the director may thereafter apply by petition to the circuit court of the county for a review of the director's action. The circuit court shall forthwith fix a time for hearing de novo upon the petition and shall, after such hearing, by order entered of record, affirm, modify or set aside, in whole or in part, the order and action of the director. Any person whose interests shall have been substantially affected by the final order of the circuit court may appeal the same to the Supreme Court of Appeals in the manner prescribed by law.

§22-5-9. Powers reserved to secretary of the Department of Health and Human Resources, Commissioner of Bur for Public Health, local health boards and political subdivisions; conflicting statutes repealed.

Nothing in this article affects or limits the powers or duties heretofore conferred by the provisions of chapter sixteen of this code upon the the Secretary of the Department of Health and Human Resources, the Commissioner of the Bureau for Public Health, county health boards, county health officers, municipal health boards, municipal health officers, combined boards of health or any other health agency or political subdivision of this state except insofar as such powers and duties might otherwise apply to the control, reduction or abatement of air pollution. All existing statutes or parts of statutes are, to the extent of their inconsistencies with the provisions of this article and to the extent that they might otherwise apply to the control, reduction or abatement of air pollution, hereby repealed: *Provided,* That no ordinance previously adopted by any municipality relating to the control, reduction or abatement of air pollution is repealed by this article.

§22-5-10. Records, reports, data or information; confidentiality; proceedings upon request to inspect or copy.

(a) All air quality data, emission data, permits, compliance schedules, orders of the director, board orders and any other information required by a federal implementation program (all for convenience hereinafter referred to in this section as "records, reports, data or information") obtained under this article shall be available to the public, except that upon a showing satisfactory to the director, by any person, that records, reports, data or information or any particular part thereof, to which the director has access under this article if made public, would divulge methods or processes entitled to protection as trade secrets of the person, the director shall consider these records, reports, data or information or a particular portion thereof confidential: *Provided,* That this confidentiality does not apply to the types and amounts of air pollutants discharged and that these records, reports, data or information may be disclosed to other officers, employees or authorized representatives of the state or of the federal environmental protection agency concerned with enforcing this article, the federal Clean Air Act, as amended, or the federal Resource Conservation and Recovery Act, as amended, when relevant to any official proceedings thereunder: *Provided, however,* That the officers, employees or authorized representatives of the state or federal environmental protection agency protect these records, reports, data or information to the same degree required of the director by this section. The director shall promulgate legislative rules regarding the protection of records, reports, data or information, or trade secrets, as required by this section.

(b) Upon receipt of a request for records, reports, data or information which constitute trade secrets and prior to making a final determination to grant or deny the request, the director shall notify the person claiming that any record, report, data or information is entitled to protection as a trade secret, and allow the person an opportunity to respond to the request in writing.

(c) All requests to inspect or copy documents must state with reasonable specificity the documents or type of documents sought to be inspected or copied. Within five business days of the receipt of a request, the director or his or her designate shall by order: (1) Advise the person making the request of the time and place at which the person may inspect and copy the documents, which, if the request addresses information claimed as confidential, may not be sooner than thirty days following the date of the determination to disclose, unless an earlier disclosure date is agreed to by the person claiming the confidentiality; or (2) deny the request, stating in writing the reasons for denial. If the request addresses information claimed as confidential, notice of the action taken pursuant to this subsection shall also be provided to the person asserting the claim of confidentiality.

Any person adversely affected by a determination, by order or otherwise, regarding information confidentiality under this article may appeal the determination to the air quality board pursuant to the provisions of article one, chapter twenty-two-b of this code. The filing of a timely notice of appeal shall stay any determination, by order or otherwise, to disclose confidential information pending a final decision on the appeal. The scope of review is limited to the question of whether the records, reports, data or other information, or any particular part thereof sought to be inspected or copied, are entitled to be treated as confidential under subsection (a) of this section. The air quality board shall afford evidentiary protection in appeals as is necessary to protect the confidentiality of the information at issue, including the use of in camera proceedings and the sealing of records where appropriate.

(d) In lieu of the provision of chapter twenty-nine-b of this code, the provision of this section shall apply to determinations of confidentiality.

§22-5-11. Construction, modification or relocation permits required for stationary sources of air pollutants.

(a) Unless otherwise specifically provided in this article, no person shall construct, modify or relocate any stationary source of air pollutants without first obtaining a construction, modification or relocation permit as provided in this article.

(b) The secretary shall by rule specify the class or categories of stationary sources to which this section applies. Application for permits shall be made upon such form, in such manner, and within such time as the rule prescribes and shall include such information, as in the judgment of the secretary, will enable him or her to determine whether such source will be so designed as to operate in conformance with the provisions of this article or any rules of the secretary.

(c) Unless otherwise specifically provided in this article, the secretary shall issue a permit for a major stationary source within a reasonable time not to exceed three hundred sixty-five calendar days, after the secretary determines that the application is complete.

(d) Unless otherwise specifically provided in this article, the secretary shall issue a permit for all other sources including modifications of existing major stationary sources which are not major modifications within a reasonable time not to exceed ninety calendar days, after the date the secretary determines the application is complete. The Secretary may extend this time by thirty calendar days to allow for public comment.

(e) A permit application will be denied if the secretary determines that the proposed construction, modification or relocation will not be in accordance with this article or rules promulgated thereunder.

(f) For purposes of this section, a modification is any physical change in, or change in the method of operation of, a stationary source which increases the amount of any air pollutant discharged by a source above the de minimis level set by the secretary.

(g) With respect to the construction of new nonmajor stationary sources, or modifications of nonmajor stationary sources, or modifications which are not major modifications to existing major stationary sources, or relocations of nonmajor stationary sources, the following requirements apply:

(1) The secretary shall issue an administrative update to a permit issued under this section with respect to any of these sources, unless he or she determines that the proposed administrative update will not be in accordance with this article or rules promulgated hereunder, in which case the secretary shall issue an order denying the administrative update. Any administrative update shall be issued by the secretary within a reasonable time not to exceed sixty calendar days after receipt of a complete application. Administrative updates are minor revisions of existing permits as further described and authorized by rule.

(2) The secretary shall, within a reasonable time not to exceed forty-five calendar days after the date the secretary determines that an application is complete, issue a registration under a general permit applicable to any of these sources, unless he or she determines that the proposed construction, modification or relocation will not be in accordance with this article or rules promulgated hereunder. General permits are permits authorizing the construction, modification or relocation of a category of sources by the same owner or operator or involving the same or similar processes or pollutants upon the terms and conditions specified in the general permit for those types of sources.

(3) The secretary shall, within a reasonable time not to exceed forty-five calendar days after receipt of a complete application, issue a temporary permit or a relocation permit, unless he or she determines that the proposed construction, modification or relocation will not be in accordance with this article or rules promulgated hereunder. Temporary permits are permits authorizing the owner or operator to make limited changes for limited periods of time as further described and authorized by rule.

(h) The secretary shall determine whether an application filed under this section is complete within thirty calendar days after receipt of that application at which time the secretary shall notify the applicant in writing as to whether the application is complete or specify any additional information required for the application to be complete.

(i) The secretary, shall propose rules for legislative approval in accordance with the provisions of article three, chapter twenty nine-a of this code, to implement the provisions of this section by August 1, 2008.

§22-5-11a. Activities authorized in advance of permit issuance.

(a) With respect to the modifications of nonmajor stationary sources, or modifications which are not major modifications to existing major stationary sources, the following activities are authorized in advance of permit issuance. Any authorized activities undertaken by or on behalf of the permit applicant prior to the issuance of a final permitting action by the secretary are undertaken at the permit applicant's own risk and with the knowledge that the application for a permit or permit modification may be denied:

(1) Receiving or storing on-site or off-site any equipment or supplies which make up in part or in whole an emission unit or any support equipment, facilities, building or structure.

(2) A person who holds an active West Virginia air quality permit issued under this article at an existing source, and who has applied to the secretary for permission to alter, expand or modify that source or to allow a new emissions unit at that source, may begin the construction of any such alteration, expansion, modification or new emission unit in advance of permit issuance in accordance with this section. The person may not operate any altered, expanded, modified or new emission unit without first obtaining an air quality permit as required by rules promulgated by the secretary.

(3) The following sources are ineligible for submission of an application for permission to commence construction in advance of permit issuance:

(A) Sources subject to the "Federal Clean Air Act" subsections 112(g) or 112(j).

(B) Sources seeking federally enforceable permit conditions in order to avoid otherwise applicable standards;

(C) Sources requiring a specific case-by-case emission limitation or standard under 45CSR21 or 45CSR27.

(4)(A) To qualify for the authorization to construct in advance of permit issuance as provided in this section, the permittee shall submit to the secretary an application for permission to commence construction in advance of permit issuance.

(B) Such application for permission to commence construction shall include all of the following:

(1) The name and location of the source and the name and address of the permittee;

(2) The permit number of each active permit issued under this article for such source;

(3) The nature of the sources and equipment associated with

such alteration, expansion, modification or new emission unit;

(4) An estimate of the maximum hourly and annual emissions of regulated air pollutants increased as a result of such alteration, expansion, modification or new emission unit;

(5) The air pollution control devices or methods that are to be employed in connection with the alteration, expansion, modification or new emission unit;

(6) A listing of the applicable state and federal air quality regulatory requirements for alteration, expansion, modification or new emission unit, and sufficient information which, in the judgement of the secretary, will demonstrate compliance with any applicable state and federal air quality regulatory requirements;

(7) The anticipated construction or building schedule for alteration, expansion, modification or new emission unit;

(8) A certification signed by the responsible official that the source, equipment and devices that are subject to a request for construction authorization will not be operated until the permittee has obtained a permit under rules promulgated by the secretary;

(9) A certification by the responsible official that any construction undertaken prior to the issuance of a final permit under rules of the secretary is undertaken at the permittee's own risk and with the knowledge that the permittee may be denied a permit or permit modification without regard to the permittee's financial investment or addition to or modification of the source;

(10) A certification signed by the responsible official that all of the information contained in the application is complete and accurate to the best of the responsible official's knowledge and ability; and

(11) Upon submission of the application for permission to construct, the applicant shall give notice by publishing a Class I legal advertisement of the applicant's intent to alter or expand the physical arrangement or operation of an existing stationary source and the opportunity to provide written comment to the secretary within thirty calendar days of the publication. The applicant shall post a visible and accessible sign, at a minimum 2 feet square, at the entrance to the source or proposed

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site. The sign must be clearly marked indicating that an air quality permit has been applied for and include the West Virginia Division of Air Quality permitting section telephone number and web site for additional information. The applicant must post the sign for the duration of the public notice period. Public notice shall be in a newspaper having general circulation in the county or counties where the facility is located. The notice shall contain the information required by rules promulgated by the secretary. Within fifteen days of completion of the public comment period, the secretary shall consider and respond to all written comments. If the secretary finds that concerns raised by the public comment period give rise to issues or concerns that would cause a construction or operational permit not to be issued, the secretary may issue a revocation or stay of the authorization to construct until those issues or concerns are resolved.

(c) The secretary shall determine whether an application for permission to commence construction in advance of permit issuance is complete within fifteen calendar days after receipt of the application at which time the secretary shall notify the applicant in writing as to whether the application is complete or specify any additional information required for the application to be complete.

(d) Within fifteen calendar days after the secretary has made a determination that an application for permission to commence construction in advance of permit issuance is complete, unless the secretary for good cause shown, extends the fifteen day time period for up to an additional fifteen calendar days, the secretary shall notify the applicant in writing of his or her determination as to whether each of the following conditions has or has not been satisfied:

(1) The applicant is and has been for a period of at least three years in substantial compliance with all other active permits and applicable state and federal air quality regulatory requirements under this article;

(2) The applicant has demonstrated that the alteration, expansion, modification or new emission unit will be in compliance with all applicable state and federal air quality regulatory requirements;

(3) The alteration, expansion, modification or new emission unit will not interfere with attainment or maintenance of an applicable ambient air quality standard, cause or contribute to a violation of an applicable air quality increment or be inconsistent with the intent and purpose of this article;

(4) The facility will be altered or expanded so that it will be used for either the same or a similar use as the use already permitted;

(5) The alteration or expansion will not result in a disproportionate increase in size of the facility already permitted; and

(6) The alteration or expansion will result in the same or substantially similar emissions as the facility already permitted.

If the secretary finds that all of the conditions have been satisfied, the notice issued by the secretary shall state that construction of the alteration, expansion, modification or new emission unit in advance of permit issuance may begin immediately. If the secretary finds that one or more of the conditions has not been met, the notice shall state that the requested construction, alteration, expansion, modification or new emission unit may not begin prior to issuance of a new or modified permit.

(e) If at any time during the construction of such alteration, expansion, modification or new emission unit, the secretary determines that the source is not likely to qualify for a permit or permit modification under applicable rules, the secretary may order that construction cease until the secretary makes a decision on the application for a permit or permit modification. If the secretary orders that construction cease, then construction of the alteration, expansion, modification or new emission unit may resume only if the secretary either makes a subsequent written determination that the circumstances that resulted in such

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order have been adequately addressed or if the secretary issues a permit or permit modification under the rules that authorize construction to resume.

(f) The secretary shall evaluate an application for a permit or permit modification under the rules and make a decision on the same basis as if the construction of the alteration, expansion, modification or new emission unit in advance of permit issuance had not been authorized pursuant to this section. No evidence regarding any contract entered into, financial investment made, construction undertaken, or economic loss incurred by any person or permittee who proceeds under this section without first obtaining a permit under this article is admissible in any contested case or judicial proceeding involving any permit required under the rules. No evidence as to any determination or order by the secretary pursuant to this section shall be admissible in any contested case or judicial proceeding related to any permit required under this article.

(g) Any permittee who proceeds under this section shall be precluded from bringing any action, suit or proceeding against the state, the officials, agents, and employees of the state or the secretary for any loss resulting from any contract entered into, financial investment made, construction undertaken, or economic loss incurred by the permittee in reliance upon the provisions of this section.

(h) This section does not relieve any person of the obligation to comply with any other requirement of state law, including any requirement to obtain any other permit or approval prior to undertaking any activity associated with preparation of the site or the alteration or expansion of the physical arrangement or method of operation of a source at a facility for which a permit is required under the rules.

(i) This section does not relieve any person from any preconstruction or construction prohibition imposed by any federal requirement, federal delegation, federally approved requirement in any state implementation plan, or federally approved requirement under the Title V permitting program, as determined solely by the secretary. This section does not apply to any construction, alteration, or expansion that is subject to requirements for prevention of significant deterioration or federal nonattainment new source review, as determined solely by the secretary. This section does not apply if it is inconsistent with any federal requirement, federal delegation, federally approved requirement in any state implementation plan, or federally approved requirement under the Title V permitting program, as determined solely by the secretary.

(j) A permittee who submits an application to commence construction in advance of permit issuance under this section shall pay to the department a fee of $200 for each application submitted to cover a portion of the administrative costs of implementing this section.

(k) The secretary, in accordance with chapter twenty-nine-a of this code, shall propose legislative rule that may be necessary to implement the provisions of this section by August 1, 2008.

(l) The secretary is directed to report back to the Joint Committee on Government and Finance by January 1, 2010, on the impact of the implementation of the expedited permits authorized pursuant to this section. The report shall include, but not be limited to, assessments regarding the number and types of facilities utilizing this section, whether the agency has found this expedited process has assisted these facilities to implement construction and make revisions to their operations efficiently, without adverse impacts on the agency, the permitting process, or statewide air quality.

§22-5-12. Operating permits required for stationary sources of air pollution.

No person may operate a stationary source of air pollutants without first obtaining an operating permit as provided in this section. The director shall promulgate legislative rules, in accordance with chapter twenty-nine-a of this code, which

specify classes or categories of stationary sources which are required to obtain an operating permit. The legislative rule shall provide for the form and content of the application procedure including time limitations for obtaining the required permits. Any person who has filed a timely and complete application for a permit or renewal thereof required by this section, and who is abiding by the requirements of this article and the rules promulgated pursuant thereto is in compliance with the requirements of this article and any rule promulgated thereunder until a permit is issued or denied. Any legislative rule promulgated pursuant to the authority granted by this section shall be equivalent to and consistent with rules and regulations adopted by the administrator of United States environmental protection agency pursuant to Title IV and Title V of the Clean Air Act Amendments of 1990, 42 U.S.C. §7651*et seq*. and 42 U.S.C. §7661 *et seq*., respectively: *Provided,* That such legislative rule may deviate from the federal rules and regulations where a deviation is appropriate to implement the policy and purpose of this article taking into account such factors unique to West Virginia.

§22-5-13. Consolidation of permits.

For permits required by sections eleven and twelve of this article, the director may incorporate the required permits with an existing permit or consolidate the required permits into a single permit.

§22-5-14. Administrative review of permit actions.

Any person whose interest may be affected, including, but not necessarily limited to, the applicant and any person who participated in the public comment process, by a permit issued, modified or denied by the secretary, or construction authorization pursuant to section eleven-a of this article, may appeal such action of the secretary to the air quality board pursuant to article one, chapter twenty-two-b of this code.

§22-5-15. Motor vehicle pollution, inspection and maintenance.

(a) As the state of knowledge and technology relating to the control of emissions from motor vehicles may permit or make appropriate and in furtherance of the purposes of this article, the director may provide by legislative rule for the control of emissions from motor vehicles. The legislative rule may prescribe requirements for the installation and use of equipment designed to reduce or eliminate emissions and for the proper maintenance of such equipment and of vehicles. Any legislative rule pursuant to this section shall be consistent with provisions of federal law, if any, relating to control of emissions from the vehicles concerned. The director shall not require, as a condition precedent to the initial sale of a vehicle or vehicular equipment, the inspection, certification or other approval of any feature or equipment designed for the control of emissions from motor vehicles, if such feature or equipment has been certified, approved or otherwise authorized pursuant to federal law.

(b) Except as permitted or authorized by law or legislative rule, no person shall fail to maintain in good working order or remove, dismantle or otherwise cause to be inoperative any equipment or feature constituting an operational element of the air pollution control system or mechanism of a motor vehicle required by rules of the director to be maintained in or on the vehicle. Any such failure to maintain in good working order or removal, dismantling or causing of inoperability subjects the owner or operator to suspension or cancellation of the registration for the vehicle by the Department of Transportation, Division of Motor Vehicles. The vehicle is not thereafter eligible for registration until all parts and equipment constituting operational elements of the motor vehicle have been restored, replaced or repaired and are in good working order.

(c) The Department of Transportation, Division of Motor Vehicles, Department of Administration, information and communication services division and the State Police shall make available technical information and records to the director to implement the legislative rule regarding motor vehicle pollution, inspection and maintenance. The director may promulgate a

legislative rule establishing motor vehicle pollution, inspection and maintenance standards and imposing an inspection fee at a rate sufficient to implement the motor vehicle inspection program and shall do so when required pursuant to federal law regarding attainment of ambient air quality standards.

(d) The director may promulgate a legislative rule requiring maintenance of features of equipment in or on motor vehicles for the purpose of controlling emissions therefrom and shall do so when required pursuant to federal law regarding attainment of ambient air quality standards, and no motor vehicle may be issued a Division of Motor Vehicles registration certificate, or the existing registration certificate shall be revoked, unless the motor vehicle has been found to be in compliance with the director's legislative rule.

(e) The remedies and penalties provided in this section and section one, article three, chapter seventeen-a of this code, apply to violations hereof and the provisions of sections six or seven of this article do not apply thereto.

(f) As used in this section "motor vehicle" has the same meaning as in chapter seventeen-c of this code.

§22-5-16. Small business environmental compliance assistance program, compliance advisory panel.

The secretary of the Department of Commerce, labor, and environmental resources shall establish a small business stationary source technical and environmental compliance assistance program which meets the requirements of Title V of the Clean Air Act Amendments of 1990, 42 U.S.C. §7661 et seq. A compliance advisory panel composed of seven members appointed as follows shall be created to periodically review the effectiveness and results of this assistance program:

(a) Two members who are not owners, nor representatives of owners, of small business stationary sources, selected by the Governor to represent the general public;

(b) One member selected by the Speaker of the House of Delegates who is an owner or who represents owners of small business stationary sources;

(c) One member selected by the minority leader of the House of Delegates who is an owner or who represents owners of small business stationary sources;

(d) One member selected by the President of the Senate who is an owner or who represents owners of small business stationary sources;

(e) One member selected by the minority leader of the Senate who is an owner or who represents owners of small business stationary sources; and

(f) One member selected by the director to represent the director.

§22-5-17. Interstate ozone transport.

(a) This section of the Air Pollution Control Act may be referred to as the Interstate Ozone Transport Oversight Act.

(b) The Legislature hereby finds that:

(1) The federal Clean Air Act, as amended, contains a comprehensive regulatory scheme for the control of emissions from mobile and stationary sources, which will improve ambient air quality and health and welfare in all parts of the nation.

(2) The number of areas unable to meet national ambient air quality standards for ozone has been declining steadily and will continue to decline with air quality improvements resulting from implementation of the federal Clean Air Act amendments of 1990, and the mobile and stationary source emission controls specified therein.

(3) Scientific research on the transport of atmospheric ozone across state boundaries is proceeding under the auspices of the United States environmental protection agency (U.S. EPA), state agencies, and private entities, which research will lead

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to improved scientific understanding of the causes and nature of ozone transport, and emission control strategies potentially applicable thereto.

(4) The northeast ozone transport commission established by the federal Clean Air Act Amendments of 1990 has proposed emission control requirements for stationary and mobile sources in certain northeastern states and the District of Columbia in addition to those specified by the federal Clean Air Act amendments of 1990.

(5) Membership of the northeast ozone transport commission includes, by statute, representatives of state environmental agencies and Governors' offices; similar representation is required in the case of other ozone transport commissions established by the Administrator of the United States environmental protection agency pursuant to Section 176A of the federal Clean Air Act, as amended.

(6) The northeast ozone transport commission neither sought nor obtained state Legislative Oversight or approval prior to reaching its decisions on mobile and stationary source requirements for states included within the northeast ozone transport region.

(7) The Commonwealth of Virginia and other parties have challenged the Constitutionality of the northeast ozone transport commission and its regulatory proposals under the guarantee, compact, and joinder clauses of the United States Constitution.

(8) The United States environmental protection agency, acting outside of the aforementioned statutory requirements for the establishment of new interstate transport commissions, is encouraging the State of West Virginia and twenty-four other states outside of the northeast to participate in multistate negotiations through the ozone transport assessment group; such negotiations are intended to provide the basis for an interstate memorandum of understanding or other agreement on ozone transport requiring reductions of emissions of nitrogen oxides or volatile organic compounds in addition to those specified by the federal Clean Air Act amendments of 1990, membership of the ozone transport assessment group consists of state and federal air quality officials, without state legislative representation or participation by the Governor.

(9) Emission control requirements exceeding those specified by federal law can adversely affect state economic development, competitiveness, employment, and income without corresponding environmental benefits; in the case of electric utility emissions of nitrogen oxides, it is estimated that control costs in addition to those specified by the federal Clean Air Act could exceed $5 billion annually in a thirty-seven state region of the eastern United States, including the State of West Virginia.

(10) Requiring certain eastern states to meet emission control requirements more stringent than those otherwise applicable to other states and unnecessary for environmental protection would unfairly affect interstate competition for new industrial development and employment opportunities.

(c) It is therefore directed that:

(1) Not later than ten days subsequent to the receipt by the director of the Division of Environmental Protection of any proposed memorandum of understanding or other agreement by the ozone transport assessment group, or similar group, potentially requiring the State of West Virginia to undertake emission reductions in addition to those specified by the federal Clean Air Act, the director of the Division of Environmental Protection shall submit such proposed memorandum or other agreement to the President of the Senate and the Speaker of the House of Delegates for consideration.

(2) Upon receipt of the aforesaid memorandum of understanding or agreement, the President and the Speaker shall refer the understanding or agreement to one or more appropriate legislative committees with a request that such committees convene one or more public hearings to receive comments from agencies of government and other interested parties on its

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prospective economic and environmental impacts on the State of West Virginia and its citizens, including impacts on energy use, taxes, economic development, utility costs and rates, competitiveness and employment.

(3) Upon completion of the public hearings required by the preceding subdivision, the committees(s) shall forward to the president and the speaker a report containing its findings and recommendations concerning any proposed memorandum of understanding or other agreement related to the interstate transport of ozone. The report shall make findings with respect to the economic, health, safety and welfare and environmental impacts on the State of West Virginia and its citizens, including impacts on energy use, taxes, economic development, utility costs and rates, competitiveness and employment.

(4) Upon receipt of the report required by the preceding subdivision, the president and speaker shall thereafter transmit the report to the Governor for such further consideration or action as may be warranted.

(5) Nothing in this section shall be construed to preclude the Legislature from taking such other action with respect to any proposed memorandum of understanding or other agreement related to the interstate transport of ozone as it deems appropriate.

(6) No person is authorized to commit the State of West Virginia to the terms of any such memorandum or agreement unless specifically approved by an act of the Legislature.

§22-5-18. Market-based banking and trading programs, emissions credits; director to promulgate rules.

(a) The director shall propose legislative rules for promulgation in accordance with article three, chapter twenty-nine-a of this code, to the full extent allowed by federal and state law, one or more rules establishing a voluntary emissions trading and banking program that provides incentives to make progress toward the attainment or maintenance of the national ambient air quality standards, the reduction or prevention of hazardous air contaminants or the protection of human health and welfare and the environment from air pollution.

(b) The director shall establish a system by legislative rule for quantifying, verifying, determining eligibility, registering, trading and using all emissions reduction credits, for banking and trading if achieved after January 1, 1991, to the extent permitted by federal law. Credits also shall be available for permanent shutdowns. Ten percent of any emission reduction credits registered with the director shall be retired from future use: *Provided,* That fifty percent of any emission reduction credits generated from permanent shutdowns prior to the effective date of the legislative rule or rules promulgated pursuant to this section shall be retired from future use. All other emissions reduction credits registered shall remain in effect until used and debited or retired. Credits not used within ten years shall be retired from future use. The director may charge a reasonable transaction fee at the time any credits are registered and shall deposit the fees in the air pollution control fund.

The division may establish the emissions trading program as a state, multistate or regional program as long as the program contributes to the goal of improving the air quality in West Virginia and in the air quality region where the source is located.

§22-5-19. Inventory of greenhouse gases.

(a) The secretary shall establish a program to inventory greenhouse gas emissions from major sources that are subject to mandatory federal greenhouse gases reporting requirements. The secretary shall obtain available emissions data directly from the appropriate federal entity, including the United States Environmental Protection Agency.

(b) As used in this section, "greenhouse gas" means carbon dioxide, methane, nitrous oxide, hydroflurocarbons, perfluorocarbons and sulfur hexafluoride.

§22-5-20. Development of a state plan relating to carbon dioxide emissions from existing fossil fuel-fired electric generating units.

(a) *Legislative findings.* —

(1) The United States Environmental Protection Agency has proposed a federal rule pursuant to Section 111(d) of the Clean Air Act, 42 U. S. C. §7411(d), to regulate carbon dioxide emissions from electric generating units.

(2) The rule is expected to go into effect on or about June 30, 2015, and will require each state to submit a state plan pursuant to Section 111(d) that sets forth laws, policies and regulations that will be enacted by the state to meet the federal guidelines in the rule.

(3) The creation of this state plan necessitates establishment and creation of law affecting the economy and energy policy of this state.

(4) The Environmental Protection Agency has stated that any state plan it ultimately approves shall become enforceable federal law upon that state.

(5) The state disputes the jurisdiction and purported binding nature asserted by the Environmental Protection Agency through this rule, and reserves to itself those rights and responsibilities properly reserved to the State of West Virginia.

(6) Given the economic impact and potentially legally binding nature of the submission of a state plan, there is a compelling state interest to require appropriate legislative review and passage of law prior to submission, if any, of a state plan pursuant to Section 111(d) of the Clean Air Act.

(b) *Submission of a state plan.* — Absent specific legislative enactment granting such powers or rule-making authority, the Department of Environmental Protection or any other agency or officer of state government is not authorized to submit to the Environmental Protection Agency a state plan under this section, or otherwise pursuant to Section 111(d) of the Clean Air Act:*Provided,* That the Department of Environmental Protection, in consultation with the Department of Environmental Protection Advisory Council and other necessary and appropriate agencies and entities, may develop a proposed state plan in accordance with this section.

(c) *Development of a Proposed State Plan.* — (1) The Department of Environmental Protection shall, no later than one hundred eighty days after a rule is finalized by the Environmental Protection Agency that requires the state to submit a state plan under Section 111(d) of the Clean Air Act, 42 U. S. C. § 7411(d), submit to the Legislature a report regarding the feasibility of the state's compliance with the Section 111(d) rule. The report must include a comprehensive analysis of the effect of the Section 111(d) rule on the state, including, but not limited to, the need for legislative or other changes to state law, and the factors referenced in subsection (g) of this section. The report must make at least two feasibility determinations: (i) Whether the creation of a state plan is feasible based on the comprehensive analysis; and (ii) whether the creation of a state plan is feasible before the deadline to submit a state plan to Environmental Protection Agency under the Section 111(d) rule, assuming no extensions of time are granted by Environmental Protection Agency. If the department determines that a state plan is or is not feasible under clause (i) of this subsection, the report must explain why. If the department determines that a state plan is not feasible under clause (ii) of this subsection, it shall explain how long it requires to create a state plan and then endeavor to submit such a state plan to the Legislature as soon as practicable. Such state plan may be on a unit-specific performance basis and may be based upon either a rate-based model or a mass-based model.

(2) If the department determines that the creation of a state plan is feasible, it shall develop and submit the proposed state plan to the Legislature sitting in regular session, or in an extraordinary session convened for the purpose of consideration

of the state plan, in sufficient time to allow for the consideration of the state plan prior to the deadline for submission to the Environmental Protection Agency.

(3) In addition to submitting the proposed state plan to the Legislature, the department shall publish the report and any proposed state plan on its website.

(d) If the department proposes a state plan to the Legislature in accordance with subsection (c) of this section, the department shall propose separate standards of performance for carbon dioxide emissions from existing coal-fired electric generating units in accordance with subsection (e) of this section and from existing natural gas-fired electric generating units in accordance with subsection (f) of this section. The standards of performance developed and proposed under any state plan to comply with Section 111 of the Clean Air Act should allow for greater flexibility and take into consideration the additional factors set forth in subsection (g) of this section as a part of any state plan to achieve targeted reductions in greenhouse gas emissions which are equivalent or comparable to the goals and marks established by federal guidelines.

(e) *Standards of performance for existing coal-fired electric generating units.* — Except as provided under subsection (g) of this section, the standard of performance proposed for existing coal-fired electric generating units under subsection (c) of this section may be based upon:

(1) The best system of emission reduction which, taking into account the cost of achieving the reduction and any nonair quality health and environmental impact and energy requirements, has been adequately demonstrated for coal-fired electric generating units that are subject to the standard of performance;

(2) Reductions in emissions of carbon dioxide that can reasonably be achieved through measures undertaken at each coal-fired electric generating unit; and

(3) Efficiency and other measures that can be undertaken at each coal-fired electric generating unit to reduce carbon dioxide emissions from the unit without switching from coal to other fuels or limiting the economic utilization of the unit.

(f) *Standards of performance for existing natural gas-fired electric generating units.* — Except as provided in subsection (g) of this section, the standard of performance proposed for existing gas-fired electric generating units under subsection (c) of this section may be based upon:

(1) The best system of emission reduction which, taking into account the cost of achieving the reduction and any nonair quality health and environmental impact and energy requirements, has been adequately demonstrated for natural gas-fired electric generating units that are subject to the standard of performance;

(2) Reductions in emissions of carbon dioxide that can reasonably be achieved through measures at each natural gas-fired electric generating unit; and

(3) Efficiency and other measures that can be undertaken at the unit to reduce carbon dioxide emissions from the unit without switching from natural gas to other lower-carbon fuels or limiting the economic utilization of the unit.

(g) Flexibility in establishing standards of performance. — In developing a flexible state plan to achieve targeted reductions in greenhouse gas emissions, the department shall endeavor to establish an achievable standard of performance for any existing fossil fuel-fired electric generating unit, and examine whether less stringent performance standards or longer compliance schedules may be implemented or adopted for existing fossil fuel-fired electric generating units in comparison to the performance standards established for new, modified or reconstructed generating units, based on the following:

(1) Consumer impacts, including any disproportionate impacts of energy price increases on lower income populations;

(2) Nonair quality health and environmental impacts;

(3) Projected energy requirements;

(4) Market-based considerations in achieving performance standards;

(5) The costs of achieving emission reductions due to factors such as plant age, location or basic process design;

(6) Physical difficulties with or any apparent inability to feasibly implement certain emission reduction measures;

(7) The absolute cost of applying the performance standard to the unit;

(8) The expected remaining useful life of the unit;

(9) The impacts of closing the unit, including economic consequences such as expected job losses at the unit and throughout the state in fossil fuel production areas including areas of coal production and natural gas production and the associated losses to the economy of those areas and the state, if the unit is unable to comply with the performance standard;

(10) Impacts on the reliability of the system; and

(11) Any other factors specific to the unit that make application of a modified or less stringent standard or a longer compliance schedule more reasonable.

(h) *Legislative consideration of proposed state plan under Section 111(d) of the Clean Air Act.* — (1) If the department submits a proposed state plan to the Legislature under this section, the Legislature may by act, including presentment to the Governor: (i) Authorize the department to submit the proposed state plan to the Environmental Protection Agency; (ii) authorize the department to submit the state plan with amendment; or (iii) not grant such rulemaking or other authority to the department for submission and implementation of the state plan.

(2) If the Legislature fails to enact or approve all or part of the proposed state plan, the department may propose a new or modified state plan to the Legislature in accordance with the requirements of this section.

(3) If the Environmental Protection Agency does not approve the state plan, in whole or in part, the department shall as soon as practicable propose a modified state plan to the Legislature in accordance with the requirements of this section.

(i) *Legal effect.* — Any obligation created by this section and any state plan submitted to the Environmental Protection Act pursuant to this section shall have no legal effect if:

(1) The Environmental Protection Agency fails to issue, or withdraws, its federal rules or guidelines for reducing carbon dioxide emissions from existing fossil fuel-fired electrical generating units under 42 U. S. C. §7411(d); or,

(2) A court of competent jurisdiction invalidates the Environmental Protection Agency's federal rules or guidelines issued to regulate emissions of carbon dioxide from existing fossil fuel-fired electrical generating units under 42 U. S. C. §7411(d).

(j) *Effective date.* — All provisions of this section are effective immediately upon passage.

W. Va. Code § 29B-1-1 et seq.

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CHAPTER 29B. FREEDOM OF INFORMATION.

ARTICLE 1. PUBLIC RECORDS.

§29B-1-1. Declaration of policy.

Pursuant to the fundamental philosophy of the American Constitutional form of representative government which holds to the principle that government is the servant of the people, and not the master of them, it is hereby declared to be the public policy of the State of West Virginia that all persons are, unless otherwise expressly provided by law, entitled to full and complete information regarding the affairs of government and the official acts of those who represent them as public officials and employees. The people, in delegating authority, do not give their public servants the right to decide what is good for the people to know and what is not good for them to know. The people insist on remaining informed so that they may retain control over the instruments of government they have created. To that end, the provisions of this article shall be liberally construed with the view of carrying out the above declaration of public policy.

§29B-1-2. Definitions.

As used in this article:

(1) "Custodian" means the elected or appointed official charged with administering a public body.

(2) “Law-enforcement officer” shall have the same definition as this term is defined in W.Va. Code §30-29-1: *Provided*, That for purposes of this article, “law-enforcement officer” shall additionally include those individuals defined as “chief executive” in W.Va. Code §30-29-1.

(3) "Person" includes any natural person, corporation, partnership, firm or association.

(4) "Public body" means every state officer, agency, department, including the executive, legislative and judicial departments, division, bureau, board and commission; every county and city governing body, school district, special district, municipal corporation, and any board, department, commission council or agency thereof; and any other body which is created by state or local authority or which is primarily funded by the state or local authority.

(5) "Public record" includes any writing containing information prepared or received by a public body, the content or context of which, judged either by content or context, relates to the conduct of the public's business.

(6) "Writing" includes any books, papers, maps, photographs, cards, tapes, recordings or other documentary materials regardless of physical form or characteristics.

§29B-1-3. Inspection and copying of public record; requests of Freedom of Information Act requests registry.

(a) Every person has a right to inspect or copy any public record of a public body in this state, except as otherwise expressly provided by section four of this article.

(b) A request to inspect or copy any public record of a public body shall be made directly to the custodian of such public record.

(c) The custodian of any public records, unless otherwise expressly provided by statute, shall furnish proper and reasonable opportunities for inspection and examination of the records in his or her office and reasonable facilities for making memoranda or abstracts therefrom, during the usual business hours, to all persons having occasion to make examination of them. The custodian of the records may make reasonable rules and regulations necessary for the protection of the records and to prevent interference with the regular discharge of his or her duties. If the records requested exist in

magnetic, electronic or computer form, the custodian of the records shall make copies available on magnetic or electronic media, if so requested.

(d) All requests for information must state with reasonable specificity the information sought. The custodian, upon demand for records made under this statute, shall as soon as is practicable but within a maximum of five days not including Saturdays, Sundays or legal holidays:

(1) Furnish copies of the requested information;

(2) Advise the person making the request of the time and place at which he or she may inspect and copy the materials; or

(3) Deny the request stating in writing the reasons for such denial. A denial shall indicate that the responsibility of the custodian of any public records or public body to produce the requested records or documents is at an end, and shall afford the person requesting them the opportunity to institute proceedings for injunctive or declaratory relief in the circuit court in the county where the public record is kept.

(e) The public body may establish fees reasonably calculated to reimburse it for its actual cost in making reproductions of records. A public body may not charge a search or retrieval fee or otherwise seek reimbursement based on a man-hour basis as part of costs associated with making reproduction of records.

(f) The Secretary of State shall maintain an electronic data base of notices of requests as required by section three-a of this article. The database shall be made available to the public via the Internet and shall list each freedom of information request received and the outcome of the request. The Secretary of State shall provide on the website a form for use by a public body to report the results of the freedom of information request, providing the nature of the request and the public body's response thereto, whether the request was granted, and if not, the exemption asserted under section four of this article to deny the request.

§29B-1-3a. Reports to Secretary of State by public bodies.

(a) Beginning January 1, 2016, each public body that is in receipt of a freedom of information request shall provide information to the Secretary of State relating to, at a minimum, the nature of the request, the nature of the public body's response, the time-frame that was necessary to comply in full with the request; and the amount of reimbursement charged to the requester for the freedom of information request: *Provided*, That the public body shall not provide to the Secretary of State the public records that were the subject of the FOIA request.

(b) Pursuant to article three, chapter twenty-nine-a of this code, the Secretary of State shall propose rules and emergency rules for legislative approval relating to the creation and maintenance of a publically accessible database available on the Secretary of State's website; the establishment of forms and procedures for submission of information to the Secretary of State by the public body; and for other procedures and policies consistent with this section.

§29B-1-4. Exemptions.

(a) There is a presumption of public accessibility to all public records, subject only to the following categories of information which are specifically exempt from disclosure under the provisions of this article:

(1) Trade secrets, as used in this section, which may include, but are not limited to, any formula, plan pattern, process, tool, mechanism, compound, procedure, production data or compilation of information which is not patented which

is known only to certain individuals within a commercial concern who are using it to fabricate, produce or compound an article or trade or a service or to locate minerals or other substances, having commercial value, and which gives its users an opportunity to obtain business advantage over competitors;

(2) Information of a personal nature such as that kept in a personal, medical or similar file, if the public disclosure of the information would constitute an unreasonable invasion of privacy, unless the public interest by clear and convincing evidence requires disclosure in this particular instance:*Provided,* That this article does not preclude an individual from inspecting or copying his or her own personal, medical or similar file;

(3) Test questions, scoring keys and other examination data used to administer a licensing examination, examination for employment or academic examination;

(4) Records of law-enforcement agencies that deal with the detection and investigation of crime and the internal records and notations of such law-enforcement agencies which are maintained for internal use in matters relating to law enforcement;

(5) Information specifically exempted from disclosure by statute;

(6) Records, archives, documents or manuscripts describing the location of undeveloped historic, prehistoric, archaeological, paleontological and battlefield sites or constituting gifts to any public body upon which the donor has attached restrictions on usage or the handling of which could irreparably damage the record, archive, document or manuscript;

(7) Information contained in or related to examination, operating or condition reports prepared by, or on behalf of, or for the use of any agency responsible for the regulation or supervision of financial institutions, except those reports which are by law required to be published in newspapers;

(8) Internal memoranda or letters received or prepared by any public body ;

(9) Records assembled, prepared or maintained to prevent, mitigate or respond to terrorist acts or the threat of terrorist acts, the public disclosure of which threaten the public safety or the public health;

(10) Those portions of records containing specific or unique vulnerability assessments or specific or unique response plans, data, databases and inventories of goods or materials collected or assembled to respond to terrorist acts; and communication codes or deployment plans of law-enforcement or emergency response personnel;

(11) Specific intelligence information and specific investigative records dealing with terrorist acts or the threat of a terrorist act shared by and between federal and international law-enforcement agencies, state and local law-enforcement and other agencies within the Department of Military Affairs and Public Safety;

(12) National security records classified under federal executive order and not subject to public disclosure under federal law that are shared by federal agencies and other records related to national security briefings to assist state and local government with domestic preparedness for acts of terrorism;

(13) Computing, telecommunications and network security records, passwords, security codes or programs used to respond to or plan against acts of terrorism which may be the subject of a terrorist act;

(14) Security or disaster recovery plans, risk assessments, tests or the results of those tests;

(15) Architectural or infrastructure designs, maps or other records that show the location or layout of the facilities where computing, telecommunications or network infrastructure used to plan against or respond to terrorism are located or

planned to be located;

(16) Codes for facility security systems; or codes for secure applications for facilities referred to in subdivision (15) of this subsection;

(17) Specific engineering plans and descriptions of existing public utility plants and equipment;

(18) Customer proprietary network information of other telecommunications carriers, equipment manufacturers and individual customers, consistent with 47 U.S.C. §222;

(19) Records of the Division of Corrections, Regional Jail and Correctional Facility Authority and the Division of Juvenile Services relating to design of corrections, jail and detention facilities owned or operated by the agency, and the policy directives and operational procedures of personnel relating to the safe and secure management of inmates or residents, that if released, could be used by an inmate or resident to escape a facility, or to cause injury to another inmate, resident or to facility personnel ;

(20) Information related to applications under section four, article seven, chapter sixty-one of this code, including applications, supporting documents, permits, renewals, or any other information that would identify an applicant for or holder of a concealed weapon permit: *Provided*: That information in the aggregate that does not identify any permit holder other than by county or municipality is not exempted: *Provided, however*, That information or other records exempted under this subdivision may be disclosed to a law enforcement agency or officer: (i) to determine the validity of a permit, (ii) to assist in a criminal investigation or prosecution, or (iii) for other lawful law-enforcement purposes; and

(21) Personal information of law-enforcement officers maintained by the public body in the ordinary course of the employer-employee relationship. As used in this paragraph, “personal information” means a law-enforcement officer’s social security number, health information, home address, personal address, personal telephone numbers and personal email addresses and those of his or her spouse, parents and children as well as the names of the law-enforcement officer’s spouse, parents and children.

(b) As used in subdivisions (9) through (16), inclusive, subsection (a) of this section, the term "terrorist act" means an act that is likely to result in serious bodily injury or damage to property or the environment and is intended to:

(1) Intimidate or coerce the civilian population;

(2) Influence the policy of a branch or level of government by intimidation or coercion;

(3) Affect the conduct of a branch or level of government by intimidation or coercion; or

(4) Retaliate against a branch or level of government for a policy or conduct of the government.

(c) The provisions of subdivisions (9) through (16), inclusive, subsection (a) of this section do not make subject to the provisions of this chapter any evidence of an immediate threat to public health or safety unrelated to a terrorist act or the threat of a terrorist act which comes to the attention of a public entity in the course of conducting a vulnerability assessment response or similar activity.

§29B-1-5. Enforcement.

(1) Any person denied the right to inspect the public record of a public body may institute proceedings for injunctive or declaratory relief in the circuit court in the county where the public record is kept.

(2) In any suit filed under subsection one of this section, the court has jurisdiction to enjoin the custodian or public body from withholding records and to order the production of any records improperly withheld from the person seeking

disclosure. The court shall determine the matter de novo and the burden is on the public body to sustain its action. The court, on its own motion, may view the documents in controversy in camera before reaching a decision. Any custodian of any public records of the public body found to be in noncompliance with the order of the court to produce the documents or disclose the information sought, may be punished as being in contempt of court.

(3) Except as to causes the court considers of greater importance, proceedings arising under subsection one of this section shall be assigned for hearing and trial at the earliest practicable date.

§29B-1-6. Violation of article; penalties.

Any custodian of any public records who willfully violates the provisions of this article is guilty of a misdemeanor and, upon conviction thereof, shall be fined not less than $200 nor more than $1,000, or be imprisoned in the county jail for not more than twenty days, or, in the discretion of the court, by both fine and imprisonment.

§29B-1-7. Attorney fees and costs.

Any person who is denied access to public records requested pursuant to this article and who successfully brings a suit filed pursuant to section five of this article shall be entitled to recover his or her attorney fees and court costs from the public body that denied him or her access to the records.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
RESEARCH TRIANGLE PARK, NC 27711

October 16, 2018

OFFICE OF
AIR QUALITY PLANNING
AND STANDARDS

Ms. Gail Good, Director
Bureau of Air Management
Wisconsin Department of Natural Resources
P.O. Box 7921
Madison, Wisconsin 53707

Dear Ms. Good:

On July 13, 2018, the Wisconsin Department of Natural Resources (WDNR) transmitted a letter to the U.S. Environmental Protection Agency (EPA) requesting EPA's review of a source determination that WDNR is making for a landfill (Janesville City/Rock County Landfill, or "JCL") and a collocated energy company (Ameresco Janesville LLC, or "Ameresco"). In this letter, WDNR asked whether EPA agreed with WDNR's conclusion that "JCL will be under 'common control' with Ameresco and that the two entities should be considered a single stationary source for the purpose of determining major source status" under the Clean Air Act (CAA or Act) permitting programs that WDNR administers. EPA understands this request to address whether these two entities should be considered part of the same "major source" for the operating permit program under title V of the CAA and/or part of the same "stationary source" for the New Source Review (NSR) preconstruction permit programs under title I of the CAA.[1] EPA commonly refers to these types of questions as "source determinations." Given that Wisconsin's title V and NSR programs have been approved by EPA, WDNR has primary responsibility to make this determination based on its EPA-approved rules, and this letter does not constitute a source determination by EPA regarding JCL or Ameresco.[2] EPA hopes that the following discussion is helpful to WDNR as it makes its final permitting decision with respect to JCL and Ameresco.

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[1] Under the federal and state rules governing these permitting programs, entities may be considered part of the same "major source" or "stationary source" if they (1) belong to the same major industrial grouping (2-digit Standard Industrial Classification (SIC) code); (2) are located on one or more contiguous or adjacent properties; and (3) are under the control of the same person (or persons under common control). *See* 42 U.S.C. § 7661(2) (title V statutory definition); 40 CFR §§ 70.2 and 71.2 (title V regulations); *id.* §§ 52.21(b)(5) and (6), 51.165(a)(1)(i) and (ii), and 51.166(b)(5) and (6) (NSR regulations). WDNR's permitting regulations generally mirror EPA's regulations in relevant part. *See* Wisc. N.R. 407.02(4) (title V regulations); *id.* 406.02(1m) (NSR regulations). Here, JCL and Ameresco meet the first two criteria (they are located on the same property and share the same 2-digit SIC code), so the inquiry discussed in this letter solely involves whether JCL and Ameresco's operations are under the control of the same person (or persons under common control).

[2] The EPA views articulated in this letter do not constitute a legislative rule or regulation subject to notice-and-comment rulemaking requirements nor final agency action. Additionally, this letter does not itself create any binding requirements on state and local permitting authorities, permit applicants, or the public, and the guidance it contains may not apply to a particular situation based upon the individual facts and circumstances.

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I. Background

JCL owns and operates a municipal solid waste landfill in Janesville, Wisconsin. Ameresco owns and operates an electrical generating station located on JCL's property. There are three basic elements of JCL's and Ameresco's operations: landfill operations, including landfill gas (LFG) collection; LFG treatment; and LFG combustion. As part of its landfill operations, JCL collects landfill gas (LFG) via a gas collection system. Although JCL owns and operates a flare capable of destroying its LFG, JCL typically does not do so, but rather delivers its collected LFG to Ameresco via pipeline. Ameresco operates LFG treatment equipment, which filters, de-waters, and compresses the gas. Ameresco then combusts the gas in three LFG-fired internal combustion engines used to generate electricity. Beyond the LFG treatment operations, WDNR asserts in its July 2018 letter to EPA that "JCL and Ameresco will continue to remain separate in all other respects," including with respect to JCL's collection of landfill gas and operation and maintenance of its flare, and with respect to Ameresco's operation and maintenance of its internal combustion engine generators. Currently, JCL and Ameresco each have their own title V permits. The LFG collection and treatment operations are currently covered by JCL's permit, and are not covered by Ameresco's permit or otherwise attributed to Ameresco for permitting purposes.

In its letter to EPA, WDNR evaluated the relationship between JCL and Ameresco in light of its understanding of EPA's April 30, 2018, Meadowbrook Letter.[3] The Meadowbrook Letter clarified EPA's interpretation of "control" (with regard to the regulatory definition of a single "stationary source" to include "all of the pollutant-emitting activities which . . . are under the control of the same person (or persons under common control)") and explained EPA's policy regarding how to best apply this interpretation in source determinations. In the Meadowbrook Letter, EPA explained that assessments of control should focus on "the power or authority of one entity to dictate decisions of the other that could affect the applicability of, or compliance with, relevant air pollution regulatory requirements." Meadowbrook Letter at 6. EPA explained that this inquiry asks, in relevant part, "whether the control exerted by one entity would determine whether the other entity complies or does not comply with an existing permitting requirement." *Id.* at 8.

The questions presented by WDNR involve the intersection between EPA's and WDNR's title V and NSR permitting programs and EPA's New Source Performance Standards (NSPS) applicable to landfills under section 111 of the Act.[4] Both the subpart WWW NSPS (to which JCL

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[3] Letter from William L. Wehrum, Assistant Administrator, Office of Air and Radiation, EPA, to the Honorable Patrick McDonnell, Secretary, Pennsylvania Department of Environmental Protection (April 30, 2018) ("Meadowbrook Letter").

[4] *See* 40 CFR §§ 60.750–.759 (subpart WWW NSPS, the new source landfill rule promulgated in 1996); *id.* §§ 60.760–.769 (subpart XXX NSPS, the new source landfill rule promulgated in 2016). Although this letter implicates the NSPS subpart WWW and XXX standards, similar issues could potentially arise related to other EPA standards applicable to certain landfills, including EPA's existing source emission guidelines promulgated under CAA § 111(d) (and state plans implementing these guidelines) as well as EPA's National Emission Standards for Hazardous Air Pollutants (NESHAP) applicable to landfills. *See id.* §§ 60.30c–.36c (subpart Cc emission guidelines, the existing source landfill rule promulgated in 1996); *id.* §§ 60.30f–.41f (subpart Cf emission guidelines, the existing source landfill rule promulgated in 2016); *id.* §§ 63.1930–.1990 (subpart AAAA NESHAP, promulgated in 2003).

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is currently subject) as well as the subpart XXX NSPS (to which JCL will become subject following an imminent landfill expansion project) require certain landfills to capture and collect their LFG. These standards then provide landfills multiple compliance options, including the option to destroy LFG in a flare, or to route collected landfill gas to a treatment system for sale or beneficial use.[5] The subpart XXX standards include monitoring and recordkeeping requirements for landfills that select the gas treatment compliance option, including obligations related to the filtration, de-watering, and compression of the landfill gas; these requirements are not contained in the subpart WWW standards.[6] Importantly, these requirements apply to the owner or operator of the municipal solid waste landfill.[7]

WDNR's analysis is largely based on the subpart XXX NSPS standards that will become applicable to JCL following the landfill expansion project that JCL is currently proposing. Based on JCL's responsibility to comply with the subpart XXX monitoring and recordkeeping requirements associated with gas treatment, and given Ameresco's operation of the gas treatment system, WDNR stated "that JCL will be dependent on Ameresco for compliance with the monitoring and recordkeeping obligations in Subpart XXX, or that Ameresco will have power to dictate decisions that affect JCL's compliance with relevant air pollution regulatory requirements." Thus, based on the principles outlined in EPA's Meadowbrook Letter, WDNR indicated it would conclude that "JCL will be under 'common control' with Ameresco and that the two entities should be considered a single stationary source." WDNR asked whether EPA agreed with these conclusions.

II. Discussion

The questions posed by WDNR's letter implicate two main issues: first, whether Ameresco "controls" LFG treatment if one interprets the regulatory definition of "stationary source," and in particular the concept of "control" over pollutant-emitting activities, in accord with the principles expressed in the Meadowbrook Letter; and second, if so, whether this "control" results in JCL and Ameresco being "under common control," such that the entirety of JCL's and Ameresco's operations must be treated as a single stationary source for title V and NSR permitting purposes.

As an initial matter, based on the information provided by WDNR, it seems reasonable for WDNR to conclude that Ameresco has "control" over the LFG treatment operations if the state applies the framework recommended in the Meadowbrook Letter. Ameresco has the authority to dictate actions related to the operation and monitoring of the LFG treatment equipment. As such, Ameresco has the power to dictate whether JCL complies with the subpart XXX requirements governing the monitoring and recordkeeping of treatment operations. Thus, it appears that

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[5] *See* 40 CFR §§ 60.752(b)(2)(iii), .761, .762(b)(2)(iii).

[6] *See* 40 CFR §§ 60.766(g), .767(c)(7), .768(b)(5)(ii).

[7] The provisions cited above refer to obligations of the "owner or operator" of the municipal solid waste landfill. *See* 40 CFR § 60.2 (definition of "owner or operator"); *id.* § 60.670(a) (designation of affected source as the municipal solid waste landfill); *id.* § 60.761 (definition of municipal solid waste landfill). EPA has previously stated that the owner or operator of a landfill is responsible for compliance with the NSPS, and that an owner cannot contract away its liability by arranging via contract for another entity (*i.e.*, an operator) to perform activities which are also regulated under the landfill NSPS. *See* Letter from Donald Toensing, Chief, Air Permitting and Compliance Branch, EPA Region 7, to James E. Brick, Brick, Gentry, Bowers, Swartz, Stoltze, Schuling & Levis, P.C. (January 5, 1999).

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Ameresco has "the power or authority . . . to dictate decisions that could affect . . . compliance with relevant air pollution regulatory requirements," which would amount to "control" over this aspect of operations under the Meadowbrook framework.[8] This conclusion is likely not unique to the Meadowbrook framework; given Ameresco's day-to-day operational responsibility over gas treatment, WDNR could have reasonably concluded that Ameresco controls this activity under other approaches to assessing control. However, it also seems reasonable for WDNR to conclude that JCL will have control over LFG treatment, given JCL's future compliance responsibility under NSPS subpart XXX.[9] Historically, it appears that WDNR has considered LFG treatment to be part of the JCL landfill source[10] due to the structure of the landfill NSPS. In any case, it appears that both JCL and Ameresco have overlapping degrees of operational and/or compliance responsibility with requirements governing LFG treatment, and arguably, both JCL and Ameresco could be said to have some level of control over LFG treatment.

Regarding WDNR's overarching question, the fact that Ameresco could reasonably be determined to "control" LFG treatment does *not* necessarily mean (1) that Ameresco controls other activities at the landfill (or the landfill as a whole), (2) that JCL and Ameresco are "under common control" in a broader sense, or (3) that the entirety of the two entities' operations must be considered a single stationary source. If, as WDNR asserts in its July 13, 2018, letter, "Ameresco will have no power or authority over how JCL collects the LFG or operates and maintains [JCL's] flare, and JCL will have no power or authority over how Ameresco operates and maintains [Ameresco's] internal combustion generators," then this presents a situation where the two entities each exercise some level of control over a single, limited aspect of otherwise separate operations.[11] As discussed further below, in such a situation, it would be reasonable to conclude that the JCL landfill and Ameresco energy facility are two separate sources for title V and NSR permitting purposes.

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[8] Meadowbrook Letter at 6. As WDNR notes, this outcome is different than that which EPA recommended in the Meadowbrook Letter with respect to Meadowbrook and Keystone Sanitary Landfill (KSL). In the Meadowbrook Letter, EPA considered whether Meadowbrook had the power to dictate whether KSL complied with the more general subpart WWW standards, and concluded that it did not. EPA qualified this conclusion by stating, "This conclusion is premised on Meadowbrook's representation that KSL's permit would not be modified in such a manner that Meadowbrook would have the power or authority to dictate whether KSL complies with its permit terms." Because the subpart WWW standards do not contain the subpart XXX requirements at issue here (*i.e.*, gas treatment monitoring and recordkeeping provisions), the Meadowbrook Letter did not directly address the question posed by WDNR.

[9] Given that the subpart XXX NSPS standards applicable to the owner/operator of the landfill (JCL) include requirements governing gas treatment, EPA expects that JCL *should* also retain some level of control over gas treatment if and when those standards become applicable to the source. In any case, as EPA has previously explained, JCL cannot contract away its role as owner of the landfill and related liability for compliance with the relevant NSPS standards (including requirements governing LFG treatment) for which EPA has, through rulemaking, specifically assigned it responsibility. *See supra* note 7. Similarly, JCL likely cannot contract away its legal control over aspects of operations for which it is responsible under the NSPS as the owner of the affected source. Thus, it seems reasonable to conclude that JCL retains at least some level of control over LFG treatment.

[10] *See* WDNR Operation Permit No. 54058190-P10, Term A.1.a.(4) (September 20, 2013) (term in JCL's current title V permit related to the operation of LFG treatment equipment, which cites 40 CFR § 60.752(b)(2)(iii)(C)).

[11] Determining the extent of activities controlled by multiple entities is inherently a context-specific analysis that permitting authorities should evaluate on a case-by-case basis.

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A. Distinguishing "Control" From "Persons Under Common Control"

In order to resolve these broader questions, it may be helpful to first clarify prior statements concerning "common control" in light of the relevant regulatory text. Under EPA's regulations governing source determinations, a "stationary source" is defined to encompass, in relevant part, "all of the pollutant-emitting activities which . . . are under the control of the same person (or persons under common control)."[12] EPA has often historically referred to the entirety of this inquiry as a determination of "common control." This informal, shorthand usage of the phrase "common control" may have created some confusion in light of how the terms "control" and "common control" (which are distinct in the regulatory text) are specifically used in the relevant regulations. The first part of the regulatory definition asks which activities are "under the control of the same person." The second part of the relevant regulatory text contemplates that multiple "persons under common control"—rather than a single person—might control an activity. Thus, the word "control" is used in two distinct ways: first, regarding whether a person "controls" a given *activity*, and second, regarding whether multiple persons are *themselves* "under common control."[13]

EPA's informal use of the phrase "common control" in prior EPA guidance[14] may have inadvertently blurred these distinct elements or suggested overbroad conclusions regarding when two entities should be considered "under common control." For example, one could have inferred that when multiple entities each exert a certain amount of "control" over a specific *activity* (first part of the regulatory text), then those *entities* themselves should also automatically be considered "persons under common control" (second part of the regulatory text). However, it would be inappropriate to automatically assume this, for the following reasons. First, as described above,

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[12] The term "stationary source" is defined as any "building, structure, facility, or installation which emits or may emit a regulated NSR pollutant." *E.g.*, 40 CFR § 52.21(b)(5). The definition of "Building, structure, facility, or installation" includes the specific language quoted in the text above. *E.g.*, *id.* § 52.21(b)(6). EPA's title V regulations, as well as WDNR's EPA-approved NSR and title V regulations, closely resemble this definition. *See id.* § 70.2 (defining "major source" for title V purposes); Wisc. NR 406.02(1m) (defining "facility" for NSR purposes); *id.* § 407.02(4) (defining "major source" for title V purposes). These regulations are consistent with, and help clarify, the more general text contained in relevant title V statutory provisions. *See* 42 U.S.C. § 7661(2) (including in the definition of "major source" the requirement that any group of stationary sources be "under common control"). The quoted phrases in the text above are used repeatedly throughout this letter; EPA will not repeat these citations.

[13] Put another way, the object of the word "control" differs between these two phrases in the regulatory text: the first focuses on control over a specific *activity*; the second focuses on control over an entire *person* or *entity* in a more general sense (*i.e.*, not limited to control over one particular activity that that person performs).

[14] For example, some parts of the Meadowbrook Letter specifically focused on "control" as used in the first part of the regulatory text. *See* Meadowbrook letter at 6–8, 11–12. In other instances, the term "common control" was used as a shorthand for the overall inquiry; this was not intended to specifically speak to the second part of the regulatory text. *See id.* at 3–6, 9–11. In discussing "control" in the Meadowbrook Letter, EPA also discussed a situation whereby one entity could "control" another *entity* by virtue of dictating *the other entity's actions* in a manner that has, for example, compliance consequences. However, the Meadowbrook Letter did *not* suggest that where one entity "controls" its *own* activities in a way that has compliance impacts on another entity (or where one entity "controls" an activity that another entity also "controls"), this necessarily means that the first entity "controls" the second entity itself, or that the two entities should be considered "persons under common control." Nor did the Meadowbrook Letter suggest that if one entity "controls" another entity's actions with respect to only a limited aspect of operations, both entities should necessarily be considered "persons under common control." Thus, the Meadowbrook Letter did not address the specific question presented here: how to treat otherwise distinct operations with a limited intersection of control.

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this assumption conflates two distinct aspects of the regulatory text, rendering this interpretation inconsistent with the regulatory text. Second, this distinction is important to preserve due to its practical implications. If multiple entities are not themselves "persons under common control," then only those activities that are "under the control of the same person" (*i.e.*, of *one* of the entities) would be considered part of the same source. However, if multiple entities were found to be "persons under common control," then *all* of the activities controlled by *any* of the entities would collectively be considered "under the control of . . . persons under common control," and, thus, would be part of the same source. Applying this assumption indiscriminately could therefore result in overbroad source determinations that aggregate wholly unrelated activities that may not accurately reflect "a common sense notion of a plant."[15]

For example, take two separately-owned manufacturing companies that operate independently with respect to all of their emissions-related activities, with the exception of a wastewater treatment plant over which they share control due to practical and economic convenience. In such a situation, it would stretch the plain meaning of "persons under common control," and the notion of a "common sense notion of a plant," to consider these two entities to be single source simply due to one piece of shared equipment. Such an overbroad reading could result in inequitable outcomes. The potential inequities associated with this situation mirror the concerns addressed in the Meadowbrook Letter: one entity could be unfairly held accountable for, or otherwise impacted by, the actions of another entity that were entirely beyond the first entity's control. *See* Meadowbrook Letter at 5, 7, 9.

Overall, the fact that one entity has some control over an *activity* that another entity also has some control over does not necessarily mean that the first entity also controls the second *entity*, such that the two entities are "under common control." Instead of assuming that shared control over a particular activity automatically equates to multiple entities being deemed "persons under common control," permitting authorities should independently make this latter determination. This will necessarily require a case-by-case evaluation based on the facts of a particular situation, subject to the permitting authority's exercise of reasonable discretion. In EPA's view, the phrase "persons under common control" suggests that the entities themselves are controlled from a central, unified position, such as through parent-subsidiary or other forms of corporate management relationships. Permitting authorities could also consider entities that are separate in the sense that they lack a formal organizational link of this type, but where one entity nevertheless exerts enough control over a substantial portion of the other's relevant operations, to be "persons under common control" in certain situations. However, where the overlap of control is limited to only a small portion of each entity's otherwise separate operations, EPA does not believe such entities should themselves be considered "persons under common control" simply by virtue of this limited nexus.

B. Evaluating Activities Under the Potential Control of Multiple Entities (That Are Not Under Common Control)

Where multiple entities are not themselves "persons under common control," EPA's and WDNR's regulations indicate that only those activities that are "under the control of the same

[15] 45 FR 52676, 52694–95 (August 7, 1980) (citing *Alabama Power Co. v. Costle*, 636 F.2d 323 (D.C. Cir. 1979)); *see also* 61 FR 34202, 34210 (July 1, 1996).

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person" should be considered part of the same source. Thus, activities solely controlled by one entity should not be considered part of the same source as activities solely controlled by another entity. However, EPA's regulations do not specifically address how to allocate activities that are arguably controlled, at least to some extent, by multiple otherwise separate entities. EPA believes it will be useful for WDNR and others to provide the following guidance.

There are two potential, alternative approaches to this situation: First, permitting authorities could determine that only one entity "controls" the shared activity. As a result, the shared activity would be treated as part of only that one entity's source, along with other activities controlled by that entity that are located on contiguous or adjacent properties and share the same major industrial grouping. Second, permitting authorities could determine that multiple entities "control" the shared activity. This approach would, somewhat absurdly, result in the shared activity being considered part of multiple separate sources (provided it was located on contiguous or adjacent properties and shared the same major industrial grouping with the other activities).[16] For the reasons discussed below, EPA considers the first approach to be the more appropriate one for permitting authorities to follow when making source determinations.

As an initial matter, neither the CAA nor EPA's regulations define "control" or specify how permitting authorities should determine which entity controls which activities.[17] Therefore, nothing in the Act or EPA's regulations precludes permitting authorities from determining that a single entity "controls" an activity in the regulatory sense, even where that activity may be subject to some level of control by other entities as well. Instead, the text of EPA's regulations supports the notion that, in the absence of "persons under common control," a *single person* should be determined to control each activity, rather than multiple not-commonly-controlled persons. *E.g.*, 40 CFR § 52.21(b)(6) ("under the control of the *same person* (or persons under common control)" (emphasis added)).

Moreover, the context of the Act and EPA's regulations support this approach. Under both the NSR program and the title V program (to a lesser extent), determining which air pollution-related requirements apply to a given activity is fundamentally based on how that activity is positioned relative to other activities within a single "stationary source" or "major source." This inherently requires the establishment of discrete, well-defined boundaries between sources. Although this can be a challenging task (as the facts here illustrate), EPA considers it a necessary

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[16] A simplified hypothetical may help clarify these options. There are two entities (Entities 1 and 2) and three pollution-emitting activities (activities A, B, and C). Only Entity 1 controls activity A. Both Entity 1 and 2 have some level of control over activity B. Only Entity 2 controls activity C. As discussed above, assuming Entities 1 and 2 are not themselves "persons under common control," it may not be appropriate to treat activities A, B, and C as a single source because activities A and C are not "under the control of the same person (or persons under common control)." The first approach would allocate control over activity B to only one of the entities (Entity 1) resulting in one source comprised of activities A and B, and a separate source comprised of activity C. The second approach would assign control over activity B to both entities, resulting in one source comprised of activities A and B, and another source comprised of activities B and C.

[17] The following discussion concerns the discretion available to permitting authorities to determine who controls an activity in the first instance. The same level of discretion is not available to determine which activities constitute a single source after such a determination of control has been made. Once control over a particular activity has been established, the relevant regulations dictate that all activities that are, *inter alia*, under the control of the same person (or persons under common control) must be considered part of the same major source or stationary source.

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one. The alternative—allowing a single activity to be considered part of multiple stationary sources—would lead to unworkable results inconsistent with basic elements of the NSR and title V programs and would not "carry out reasonably the purposes" of these programs.[18]

For example, in the context of determining the applicability of major source requirements under NSR or title V, if a shared activity were considered part of two separate stationary sources, both sources could be burdened by emissions increases associated with the shared activity or could take advantage of emission reductions from the shared activity. This type of double-counting emissions increases or decreases could thus artificially result in two sources (instead of one) either triggering or avoiding major NSR or title V requirements. As another example, for new sources or modifications subject to major NSR requirements, this double-counting of emissions increases or decreases could also seriously complicate and/or undermine source-specific PSD and nonattainment NSR ambient air quality modeling, as well as emissions inventories and attainment demonstrations in nonattainment areas. As a third example, if a shared activity were treated as part of two separate sources, the shared activity could potentially be subject to different or even conflicting requirements (*e.g.*, the requirement to install best available control technology at one source, but not the other), with each controlling entity motivated to comply with only one set of requirements applicable to the activity.

In order to avoid these unworkable outcomes, permitting authorities should ensure that each activity is ultimately allocated to a single source. Determining that only a single entity (or entities under common control) "controls" each activity would be a reasonable way to accomplish this. This approach is also consistent with how EPA has addressed similar issues concerning the major industrial grouping (SIC) code prong of the source determination framework, where EPA has historically recommended that permitting authorities assign a single SIC code to activities that support multiple different primary activities.[19]

Overall, permitting authorities may exercise reasonable discretion in determining which entity controls each relevant pollutant-emitting activity. As with determining whether multiple entities are "persons under common control," determining whether an entity "controls" a given activity will necessarily involve a case-by-case determination based on the specific facts of each situation. In making these decisions, permitting authorities should ensure that their source determinations ultimately reflect a "common sense notion of a plant" and that sources do not take advantage of this flexibility to circumvent major source requirements. The framework articulated in EPA's Meadowbrook Letter reflects EPA's suggested basis for making determinations of

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[18] 45 FR at 52694–95.

[19] Under longstanding EPA guidance regarding the major industrial grouping prong of the source determination framework, support facilities should be assigned the SIC code of the primary activity they support. 45 FR at 52695. Where an activity supports multiple different primary activities with different SIC codes, such a support facility could arguably be assigned multiple different SIC codes. This is analogous to the situation at hand, where an activity controlled to some extent by multiple entities could arguably be said to be "under the control of" multiple different entities. In the SIC code context, EPA has advised that the shared support activity should be assigned a single SIC code, and as a result, should be treated as part of a single source. *See id.* ("Where a single unit is used to support two otherwise distinct sets of activities, the unit is to be included within the source which relies most heavily on its support."); *see also* EPA, New Source Review Workshop Manual, DRAFT at A.4 (October 1990). In both the industrial grouping (SIC code) context and the control context, assigning a single SIC code or a single controlling entity to each activity avoids the unworkable situation where an activity could be considered part of two separate stationary sources.

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"control" in most instances. However, in instances where multiple entities with otherwise separate operations exert some level of control over an activity, it may be appropriate to consider additional information in order to determine which entity should be deemed to "control" that activity, such that the activity is attributed to the entity for permitting purposes. For example, where a federally-promulgated standard dictates that a specific entity is responsible for a specific activity, this may provide a reasonable basis for determining that this specific entity controls that activity. In this way, EPA's recommended approach provides the flexibility to harmonize CAA permitting programs with other CAA programs, such as the landfill NSPS standards implicated by this fact pattern.

III. Suggestions for WDNR Regarding JCL and Ameresco

Applying these principles to WDNR's questions regarding JCL and Ameresco's operations, WDNR could reasonably continue treating JCL and Ameresco as two separate sources if landfill operations, LFG collection, LFG flaring, and LFG combustion are not collectively "under the control of the same person (or persons under common control)." That is, provided the only area of overlap between these entities involves LFG treatment, WDNR may be able to conclude that JCL and Ameresco are not "persons under common control" solely due to the fact that LFG treatment is potentially under the control of both entities. Then, based on the reasoning explained in Section II.B above, WDNR may also be able to conclude that LFG treatment activities are only under JCL's "control"—not Ameresco's—for permitting purposes. As a result, WDNR could conclude that LFG treatment activities remain part of the stationary source associated with the landfill, separate from Ameresco's engines.

This allocation of LFG treatment activities solely to JCL for source determination purposes would be consistent with the structure of the subpart XXX NSPS. As discussed above, where LFG treatment is selected as a landfill's compliance option, the subpart XXX regulations impose requirements on the owner/operator of the landfill up through the point of LFG treatment,[20] but these standards do not extend to the ultimate use of the LFG (*e.g.*, electrical generating engines, which are covered by separate standards). Therefore, in the case of landfills with collocated LFG-to-energy operations, the structure of the subpart XXX NSPS and other relevant federal standards, and the identity of the parties responsible for compliance with those standards, may provide a reasonable framework for permitting authorities to determine which activities should be attributed to which stationary sources.

EPA's analysis and recommendations above are based on WDNR's representations that the operation of the landfill is under the sole control of JCL, and that LFG combustion is under the sole control of Ameresco. As WDNR makes its source determination for JCL and Ameresco, EPA recommends that WDNR fully consider all relevant facts regarding control over each activity under the Meadowbrook framework—including aspects of JCL's and Ameresco's relationship

[20] In fact, when EPA finalized the subpart XXX standards, it expressly indicated that obligations related to LFG treatment (specifically, the treatment system monitoring plan) would be included in the *landfill's* title V permit. 81 FR 59332, 59343, 59360 (August 29, 2016). JCL is undisputedly the owner/operator of the municipal solid waste landfill to which all obligations within the subpart XXX standards apply. *See supra* note 7. Nothing in this letter, nor in any permit decision taken by WDNR, should be taken to affect Ameresco's potential liability under the NSPS as a potential "operator" of the LFG treatment equipment or any other aspects of the landfill, as applicable.

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relevant to LFG collection and combustion—before determining whether the approach recommended above is relevant to the facts at hand in this case. Given that WDNR is the title V and NSR permitting authority for JCL and Ameresco, WDNR has the ultimate responsibility to make this determination based on the specific facts before it.

If you have any additional questions, please contact Scott Mathias of my office at (919) 541-5310 or *mathias.scott@epa.gov*.

Sincerely,

Anna Marie Wood
Director, Air Quality Policy Division

cc: Kristin Hart, WDNR
Ed Nam, Region 5 Air Division Director

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

April 30, 2018

OFFICE OF
AIR AND RADIATION

The Honorable Patrick McDonnell
Secretary of the Pennsylvania Department
of Environmental Protection
Rachel Carson Office Building
Post Box 2063
Harrisburg, Pennsylvania 17105

Dear Mr. McDonnell:

On February 14, 2018, the Pennsylvania Department of Environmental Protection (PADEP) requested that the U.S. Environmental Protection Agency review a document submitted on behalf of Meadowbrook Energy LLC (Meadowbrook) concerning whether emissions from a biogas processing facility under development by Meadowbrook should be aggregated with an existing landfill owned by Keystone Sanitary Landfill, Inc. (KSL) for Clean Air Act (CAA) permitting purposes.

EPA understands this request to relate to the question of whether these two entities should be considered part of the same "major source" under the operating permit program under title V of the CAA, and/or part of the same "stationary source" for the New Source Review (NSR) pre-construction permit programs under title I of the CAA.[1] EPA commonly refers to these types of questions as "source determinations." Under the federal rules governing these permitting programs, entities may be considered part of the same "stationary source" or "major source"[2] if they (1) belong to the same industrial grouping; (2) are located on one or more contiguous or adjacent properties; and (3) are under the control of the same person (or persons under common control).[3] Meadowbrook's analysis, as supplemented by additional analysis dated March 16, 2018, primarily asserts that the Meadowbrook and KSL facilities are not under "common control."

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[1] Although it appears that Meadowbrook's analysis only directly implicates title V permitting, the discussion in this letter and the Attachment is relevant to NSR permitting actions as well. In the NSR regulations, the definitions of "stationary source" use the term "building, structure, facility, or installation," which is separately defined.

[2] References to "major source" in this letter or Attachment are intended to refer only to the portions of the title V definitions of "major source" that relate to which activities should be considered part of the same "major source."

[3] *See* 42 U.S.C. § 7661(2) (title V statutory definition); 40 C.F.R. §§ 70.2 & 71.2 (title V regulations); 40 C.F.R. §§ 52.21(b)(5) & (6), 51.165(a)(1)(i) & (ii), and 51.166(b)(5) & (6) (NSR regulations). PADEP's permitting regulations either incorporate EPA's prevention of significant deterioration (PSD) regulations or contain similar provisions. *See, e.g.*, 25 Pa. Code 127.83 (PSD regulations incorporating EPA's regulations in 40 C.F.R. § 52.21).

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As described more fully in the Attachment below, EPA has long recognized that common control determinations should be made on a case-by-case basis. In making such determinations, and in offering its views to other permitting authorities, EPA has previously interpreted the term "common control" in a manner that may support viewing the Meadowbrook and KSL facilities as a single "stationary source" or "major source" by virtue of the support or dependency relationships between the two entities that might be viewed as providing each entity with some degree of influence over the operations of the other.

However, the potential for that interpretation to produce inconsistent and impractical outcomes in this and other cases has caused EPA to re-evaluate and revise its interpretation of the term "common control" in the title V and NSR regulations. For the reasons discussed further in the Attachment, the agency believes clarity and consistency can be restored to source determinations if the assessment of "control" for title V and NSR permitting purposes focuses on the power or authority of one entity to dictate decisions of the other that could affect the applicability of, or compliance with, relevant air pollution regulatory requirements. Under this revised interpretation, EPA agrees with Meadowbrook that PADEP may conclude that the Meadowbrook and KSL facilities are not under common control and thus not a single "stationary source" or "major source" for title V or NSR purposes. However, given that Pennsylvania's title V and NSR programs have been approved by EPA, PADEP has primary responsibility to make source determinations involving the Meadowbrook and/or KSL facilities based on its EPA-approved rules. EPA believes that the following Attachment, in explaining EPA's revised interpretation and other factors that EPA recommends considering when determining if there is "common control," should be helpful to PADEP as it makes its final permitting decision with respect to Meadowbrook.

If you have any additional questions, please contact Anna Marie Wood in the Office of Air Quality Planning and Standards at (919) 541-3604 or *wood.anna@epa.gov*.

Sincerely,

William L. Wehrum
Assistant Administrator

Attachment

cc: Krishnan Ramamurthy, Director of Air Quality, PADEP
Mark Wejkszner, Air Quality Program Manager, PADEP, Region 2

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see also 25 Pa. Code 121.1 (general air quality definition of "facility"); 25 Pa. Code 127.204(a) (nonattainment NSR regulations discussing aggregation).

Letter: William L. Wehrum, Assistant Administrator, Office of Air and Radiation, U.S. Environmental Protection Agency, to the Honorable Patrick McDonnell, Secretary, Pennsylvania Department of Environmental Protection (April 30, 2018)

Attachment

I. Meadowbrook and KSL Background

Meadowbrook Energy LLC (Meadowbrook) has indicated that it plans to construct a biogas processing facility that will convert landfill gas (LFG) and other potential biogas feedstocks into pipeline-quality natural gas for injection into the interstate natural gas pipeline system, to be used as a transportation fuel. Meadowbrook has entered into an agreement with Keystone Sanitary Landfill, Inc. (KSL),[4] whereby KSL will deliver LFG to Meadowbrook via a pipeline running between the two facilities. This pipeline will be owned by KSL up to a demarcation point, at which point the remainder of the pipeline will be separately owned by Meadowbrook.

Meadowbrook explains that KSL controls its own landfill gas collection activities and delivers untreated landfill gas to the demarcation point. After the demarcation point, Meadowbrook conducts all processing of the gas necessary to create the renewable natural gas product that it injects into the pipeline for market sale. Meadowbrook represents that the two entities have no cross-ownership or direct control over operations at the other facility. In other words, each entity has no ability to control, operate, close, or restrict the use of the other's facility.[5] Meadowbrook characterizes the relationship between the two facilities as arms-length arrangements between independent commercial entities. Meadowbrook therefore believes that Meadowbrook and KSL should not be considered under "common control," and thus their facilities should not be considered a single source.

More specifically, Meadowbrook maintains that KSL is not dependent on Meadowbrook for compliance with any portion of the requirements associated with the control of the emission of KSL's LFG. Meadowbrook indicates that KSL will retain full responsibility for compliance with all air pollutant control obligations (*e.g.*, New Source Performance Standards (NSPS) Subpart WWW requirements for LFG) until the LFG is delivered to the demarcation point (*i.e.*, until the gas is delivered to Meadowbrook). If Meadowbrook cannot accept LFG, shutoff valves in the pipeline between LFG and Meadowbrook will redirect all of the LFG to KSL's flares for

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[4] Meadowbrook indicates that this agreement is subject to future revisions. The information provided to PADEP by Meadowbrook in its initial draft analysis and its updated March 16, 2018, analysis apparently reflects the mutual understandings of Meadowbrook and KSL as of the date of these analyses.

[5] Meadowbrook acknowledges that Meadowbrook will provide either labor (likely through a third-party) or financing associated with modifying or optimizing KSL's landfill gas collection system in order to set up the pipeline between Meadowbrook and KSL. However, Meadowbrook claims that KSL would direct any Meadowbrook personnel, or third-party personnel provided by Meadowbrook, in these efforts, and that Meadowbrook would not have any rights to direct or control the operation of the LFG collection system. Additionally, Meadowbrook indicates that it is currently considering the possibility of interconnecting with KSL's leachate, condensate, and wastewater treatment systems to dispose of certain Meadowbrook products at market prices.

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destruction. KSL is required to construct and maintain sufficient flare capacity to destroy 100% of KSL's LFG, and Meadowbrook states this flare capacity exists and is currently permitted.[6] Thus, Meadowbrook concludes that even the closure of the Meadowbrook facility would not have environmental consequences to KSL's operations, nor would it affect the ability of KSL to comply with environmental regulatory requirements related to its LFG.

Meadowbrook also maintains that it is not dependent on KSL for its supply of LFG. Meadowbrook acknowledges that it has the right to purchase, and expects to purchase, all of the LFG produced by KSL to serve as a feedstock, and that Meadowbrook will rely on KSL for its first supply of LFG to produce a natural gas product for commerce. However, Meadowbrook represents that it is only required to accept as much LFG as Meadowbrook can process. Meadowbrook also indicates that its processing capacity exceeds KSL's LFG production, and that Meadowbrook is actively seeking additional suppliers of LFG and other types of biogas in order to serve as a regional refining and processing facility. Moreover, Meadowbrook claims that even if KSL were to shut down, and even if this resulted in the eventual shutdown of Meadowbrook itself, this shutdown would have no environmental consequences. Based on this, Meadowbrook asserts that it retains sole responsibility for environmental regulatory requirements (related to LFG, or otherwise) arising after the demarcation point, and that its air emissions are in no way influenced by KSL's landfill operations.

Meadowbrook emphasizes the separate compliance responsibilities of each entity, and the fact that neither entity would be able to operate the other's facility to ensure that the other's facility complies with relevant environmental requirements. First, Meadowbrook briefly discusses its own practical difficulties in having to assure its customers or potential suppliers that it is not liable for KSL's operations. Additionally, Meadowbrook highlights practical difficulties with aggregating the two entities for permitting purposes: specifically, difficulties with including Meadowbrook's operations within KSL's existing title V permit for title V compliance certification purposes. Meadowbrook notes that, if Meadowbrook's operations were incorporated into KSL's existing title V permit, KSL's responsible official would be required to certify the accuracy of such a permit modification application with respect to Meadowbrook's operations, as well as certify Meadowbrook's compliance with relevant requirements. *See* 25 Pa. Code §§ 127.402(d), 127.205(2).[7] Meadowbrook argues that the responsible official at KSL would have no way to accurately certify permit applications pertaining to Meadowbrook's facility, nor could KSL's responsible official certify Meadowbrook's compliance, because KSL has no information about or access to proprietary equipment or operations at the Meadowbrook facility. Thus, Meadowbrook argues that it would be unrealistic to expect that KSL could effectively discharge KSL's title V compliance certification requirements (with the potential for criminal liability) if the two sources were aggregated.

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[6] Meadowbrook acknowledges that KSL's title V permit will likely be modified to add an option to divert LFG to Meadowbrook, but claims that this will not affect KSL's ability to maintain title V compliance (presumably, compliance with subpart WWW requirements) through use of its existing LFG collection system and flares.

[7] Meadowbrook also references KSL's obligation to certify ongoing compliance and suggests that KSL could be held liable for Meadowbrook's operations. *See* 25 Pa. Code §§ 127.511(c)(1), 127.411(a)(1).

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II. Background on EPA Interpretations of Common Control

When determining which pollutant-emitting activities should be considered part of the same "major source" under the title V operating permit program, and/or part of the same "stationary source" under the New Source Review (NSR) program, permitting authorities should assess the three factors contained in EPA's title V and NSR regulations—same industrial grouping, location on contiguous or adjacent property, and common control—on a case-by-case basis. In the title V regulations, these criteria are reflected in the definition of "major source." 40 C.F.R. §§ 70.2 & 71.2. The NSR regulations define a "stationary source" as a "building, structure, facility, or installation" and then provide a separate definition for that phrase which reflects these three criteria. 40 C.F.R. §§ 52.21(b)(5) & (6), 51.165(a)(1)(i) & (ii), and 51.166(b)(5) & (6).

In the original promulgation of these three factors in the NSR program regulations, EPA was mindful of a decision from the U.S. Court of Appeals for the District of Columbia Circuit holding that the "source" for NSR permitting purposes should comport with the "common sense notion of a plant." 45 Fed. Reg. 52676, 52694 (Aug. 7, 1980) (citing *Alabama Power Co. v. Costle*, 636 F.2d 323 (D.C. Cir. 1979)). When EPA first established the current three-part test in the Prevention of Significant Deterioration (PSD) NSR rules adopted in 1980, the agency explained that this test would comply with *Alabama Power* by reasonably carrying out the purposes of the PSD program, approximating a "common sense notion of a plant," and avoiding the aggregation of pollutant-emitting activities that would not fit within the ordinary meaning of "building," "structure," "facility," or "installation." 45 Fed. Reg. at 52694–95. When EPA subsequently promulgated the title V definitions for Part 71 using the same three criteria, the agency said that it intended these provisions to be consistent with the language and application of the PSD definitions. 61 Fed. Reg. 34202, 34210 (July 1, 1996).

Neither the Clean Air Act (CAA), EPA's regulations, nor Pennsylvania Department of Environmental Protection's (PADEP's) regulations define "common control." Acknowledging that "[c]ontrol can be a difficult factual determination, involving the power of one business entity to affect the construction decisions or pollution control decisions of another business entity," EPA has long recognized that common control determinations should be made on a case-by-case basis. 45 Fed. Reg. 59874, 59878 (September 11, 1980).

In an early action implementing the Nonattainment NSR program, EPA explained that it would be guided by a definition of control established by the Securities and Exchange Commission (SEC), which states the following: "the possession, direct or indirect, of the power to direct or cause the direction of the management and policies of a person (or organization or association) whether through the ownership of voting shares, contract, or otherwise." 45 Fed. Reg. at 59878 (*quoting* 17 C.F.R. § 210.1-02(g)).[8] In a 1996 memorandum concerning source determinations on Federal military installations, EPA further explained:

[8] EPA has also pointed to a definition of "control" found in Webster's Dictionary, including "to exercise restraining or directing influence over," "to have power over," "power or authority to guide or manage," and "the regulation of economic activity." Letter from William A. Spratlin, Director, Air, RCRA, and Toxics Division, EPA Region 7, to Peter R. Hamlin, Chief, Air Quality Bureau, Iowa Department of Natural Resources (September 18, 1995) (the Spratlin Letter).

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> In general, the controlling entity is the highest authority that exercises restraining or directing influence over a source's economic or other relevant, pollutant-emitting activities. In considering interactions among facilities, what must be determined is who has the power of authority to guide, manage, or regulate the pollutant-emitting activities of those facilities, including "the power to make or veto decisions to implement major emission-control measures" or to influence production levels or compliance with environmental regulations.[9]

In other guidance documents and letters, EPA has identified a number of factors that should be considered when assessing whether two entities are under common control, including but not limited to shared workforces, shared management, shared administrative functions, shared equipment, shared intermediates or byproducts, shared pollution control responsibilities, and support/dependency relationships.[10] In the discussion that follows, we will refer to this as the "multi-factor" approach of evaluating common control.

Regarding the support/dependency relationship factor, in several case-specific source determinations, EPA relied upon the presence of support or dependency relationships between two or more entities that resulted in one entity either directing or influencing the operations of another entity.[11] These situations often involved a primary facility that was wholly or partially dependent on a supporting facility for a critical aspect of its operations, such as the supply of raw materials. These relationships were often characterized by mutually beneficial contractual arrangements, including output contracts (where one entity was obligated to purchase all, or a portion, of another entity's output) and requirement contracts (where one entity was obligated to produce all, or a portion, of a product that another entity requires). As a result of these relationships, in certain cases EPA has found common control due to only the influence that these economically or operationally interconnected entities exert (or have the ability to exert) on one another (*e.g.*, the ability to influence production levels).

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[9] Memorandum from John S. Seitz, Director, OAQPS, to EPA Regional Offices, Major Source Determinations for Military Installations under the Air Toxics, New Source Review, and Title V Operating Permit Programs of the Clean Air Act, 9–10 (August 2, 1996) (the Seitz Memorandum) (citation omitted). Although this memorandum specifically concerned military installations, many of the statements contained therein are illustrative of EPA's past common control interpretations and policies more broadly.

[10] *See, e.g.*, Spratlin Letter at 1–2. Other EPA guidance and correspondence regarding common control can be found at: *https://www.epa.gov/title-v-operating-permits/title-v-operating-permit-policy-and-guidance-document-index* and *https://www.epa.gov/nsr/new-source-review-policy-and-guidance-document-index*.

[11] *See, e.g.*, Letter from Kathleen Cox, Associate Director, Office of Permits & Air Toxics, EPA Region 3 to Troy D. Breathwaite, Air Permits Manager, Virginia Department of Environmental Quality, Re: GPC/SPSA-Suffolk/BASF (January 10, 2012); Letter from Gregg M. Worley, Chief, Air Permits Section, EPA Region 4, to James Capp, Chief, Air Protection Branch, Georgia Department of Natural Resources, Re: PowerSecure/FEMC/Houston County Landfill (December 16, 2011); Letter from Richard R. Long, Director, Air Program, EPA Region 8, to Julie Wrend, Legal Administrator, Air Pollution Control Division, Colorado Department of Public Health and Environment, Re: TriGen/Coors (November 12, 1998); *see also* Seitz Memorandum at 10–13 (discussing control via leases and contract-for-service relationships where a supporting entity is integral to or contributes to the operations of another entity).

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III. Need for Revision to EPA's Approach to Common Control Assessments

These latter precedents might be construed to suggest that EPA and PADEP should consider Meadowbrook and KSL to be under common control because of two elements of the relationship between these entities, both related to the support/dependency concept. First, the fact that KSL plans to dispose of its LFG by sending it to Meadowbrook via pipeline indicates that KSL will, in most circumstances, effectively rely on Meadowbrook as the mechanism by which it controls its LFG emissions in order to comply with Subpart WWW NSPS requirements applicable to the landfill. Second, the fact that KSL is expected to supply Meadowbrook with a potentially large proportion of the LFG that Meadowbrook processes implies that KSL could influence production levels at Meadowbrook, and thus, to some extent, Meadowbrook's emissions resulting from processing KSL's LFG. If Meadowbrook and KSL were determined to be under common control based on these facts, they would then be treated as a single source for title V and NSR purposes.[12]

On the other hand, the reasoning of other EPA source determinations involving similar facts could be followed to support the contrary conclusion that Meadowbrook and KSL are not under common control. Using the multi-factor approach to evaluating common control, one could weigh more heavily the fact that neither facility is entirely dependent on the other for operation.[13] KSL can control its LFG emissions via flaring without Meadowbrook, and Meadowbrook plans to receive gas from other entities. Additionally, Meadowbrook and KSL do not share workforces, management, administrative functions, equipment, or pollution control responsibilities. Under the multi-factor approach, these considerations suggest a lack of control.

Thus, during EPA's review of Meadowbrook's request, it became clear that the large number of different factual considerations implicated by prior EPA common control determinations, in addition to the agency's historically broad view of the types of relationships that can establish control (*e.g.*, support/dependency), has resulted in the potential for inconsistent outcomes in source determinations and an overall lack of clarity and certainty for sources and permitting authorities. Additionally, this particular scenario demonstrates practical difficulties that could result from considering these operations to be a single source, including the potential for inequitable outcomes.[14] Moreover, it was not obvious that treating Meadowbrook and KSL as a single source would reflect a "common sense notion of a plant." The potential for inconsistent outcomes under EPA's broad-ranging prior interpretations, as well as these other concerns regarding the facts at hand, have prompted EPA to reevaluate and narrow the agency's interpretation of "common control." The next section explains EPA's narrowed interpretation

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[12] In its March 16, 2018, submission, Meadowbrook states that its facility will be located on a property contiguous to the KSL landfill, and that the two operations will share the same two-digit SIC code. Although Meadowbrook suggests that "shared two-digit SIC codes are unlikely to contribute any meaningful information to any aggregation analysis," this is nonetheless a criterion currently included in EPA's source determination rules.

[13] *See* Letter from Judith M. Katz, Director, Air Protection Division, EPA Region 3, to Gary E. Graham, Environmental Engineer, Commonwealth of Virginia Department of Environmental Quality, Re: Maplewood/INGENCO (May 1, 2002) (Maplewood/INGENCO letter).

[14] In particular, the agency's prior approach could lead to the impractical and potentially inequitable result of holding otherwise separate business entities responsible for each other's actions, even if they do not have the power or authority to dictate such actions.

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and other considerations EPA currently views as most relevant to determining common control. The last section applies these principles in an examination of whether the Meadowbrook and KSL facilities are under common control.

IV. Refining EPA's Interpretation and Policy Concerning "Common Control"

Consistent with EPA's longstanding practice and view, determinations of common control are fact-specific and should continue to be made by permitting authorities on a case-by-case basis. However, after re-evaluating the concept of common control, EPA believes it should realign its approach to common control determinations in order to better reflect a "common sense notion of a plant," and to minimize the potential for entities to be held responsible for decisions of other entities over which they have no power or authority. For the reasons discussed further below, the agency believes clarity and consistency can be restored to source determinations if the assessment of "control" for title V and NSR permitting purposes focuses on *the power or authority of one entity to dictate decisions of the other that could affect the applicability of, or compliance with, relevant air pollution regulatory requirements.*

This document reflects EPA's interpretation of "control" in the context of EPA's title V and NSR regulations and EPA's policy regarding how to best apply this interpretation in source determinations. However, states with EPA-approved title V and NSR permitting programs retain the discretion to determine whether specific entities are under common control.[15]

A. Control means the power or authority to dictate decisions.

For purposes of source determinations, EPA considers "control" to be best understood to encompass the power or authority to dictate the outcome of decisions of another entity. This concept includes only the power to dictate a particular outcome and does not include the mere ability to influence. Thus, control exists when one entity has the power or authority to restrict another entity's choices and effectively dictate a specific outcome, such that the controlled entity lacks autonomy to choose a different course of action. This power and authority could be exercised through various mechanisms, including common ownership or managerial authority (the chain of command within a corporate structure, including parent/subsidiary relationships), contractual obligations (*e.g.*, where a contract gives one entity the authority to direct specific activities of another entity), and other forms of control where, although not specifically delineated by corporate structure or contract, one entity nonetheless has the ability to effectively direct the specific actions of another entity. Thus, control can be established: (1) when one entity has the power to command the actions of another entity (*e.g.*, Entity A expressly directs Entity B to "do X"); or (2) when one entity's actions effectively dictate the actions of another entity (*e.g.*, Entity A's actions force Entity B to do X, and Entity B cannot do anything other than X). The

[15] What follows is a discussion of those factors that EPA advises states to consider (and *not* to consider) when determining whether two entities are under common control. The general direction provided here by EPA should not be understood as controlling the outcome of any particular situation, which must be judged based on its individual facts and circumstances. This document is not a rule or regulation, and the statements herein are not binding on state or local permitting authorities. This discussion reflects a change in how EPA interprets the term "common control" in it regulations but does not change or substitute for any law, regulation, or other legally binding requirement.

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second scenario that can establish control should not be confused with the broader concept, as historically articulated, embracing the "ability to influence." While distinguishing control from the ability to merely influence will necessarily be a fact-specific inquiry, the key difference is that EPA interprets "control" to exist at the point where one entity's influence over another entity effectively removes the autonomy of the controlled entity to decide whether or how to pursue a particular course of action.[16] Ultimately, the focus is not on *how* control is established (through ownership, contract, or otherwise), but on *whether* control is established—that is, whether one entity can expressly or effectively force another entity to take a specific course of action, which the other entity cannot avoid through its own independent decision-making.

This narrower interpretation of the meaning of "control" in most respects traces back to, and is consistent with, definitions of "control" on which EPA previously relied that emphasized the "power to direct,"[17] as well as a common sense understanding of "control." However, this interpretation differs from definitions that EPA has cited more recently, as well as EPA's prior interpretation of those definitions, which extended "control" to include the ability to influence.[18] For the following reasons, EPA is no longer following these broader definitions and interpretations. Certainly, business relationships and external market forces can constrain the ability of an entity to make decisions with complete autonomy, and it is indeed rare that an entity is fully insulated from such external influences. However, the fact that an entity is influenced, affected, or somewhat constrained by contractual relationships that it negotiated at arm's length, or by external market forces, does not necessarily mean that one entity is actually controlled or governed by these influences in making a given decision. After consideration of the inconsistent, impractical, and inequitable outcomes that could have resulted in this case under the previous interpretation that extended control to include the ability to influence, EPA has concluded that a narrower interpretation is better. A narrower interpretation avoids the potential for entities to be held responsible for actions over which they have no power or authority, but which instead they could merely have some influence over due to of market conditions or a business relationship that was negotiated on the open market or otherwise at arm's length. Thus, EPA will from this point forward interpret the term "control" in its title V and NSR regulations to require more than the ability to merely influence.

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[16] For example, where Entity A is required to accept and process 100% of a raw material or intermediate produced by Entity B, decisions that Entity B makes with respect to the amount of raw material produced will likely affect Entity A's production levels, which could affect Entity A's emissions. However, provided that Entity A has the ability to independently decide how it operates its pollution-generating and pollution-controlling equipment, and to independently decide whether it expands its operations or not, this level of influence would not amount to "control."

[17] The common thread between definitions of "control" that EPA has relied upon is the "power to direct." *See, e.g.*, 17 C.F.R. § 210.1-02(g) (SEC definition of control, "*power to direct* or *cause the direction of* the management and policies of a person") (emphasis added); Spratlin Letter (citing Webster's definition of control, including "*to have power over*") (emphasis added).

[18] *See, e.g.*, Spratlin Letter (Webster's definition of control, including "power or authority to guide or manage," "restraining or directing influence over"); Seitz Memorandum at 9 ("restraining or directing influence"); *see also id.* at 10–13.

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B. Focus should be on control over decisions that affect the applicability of, or compliance with, relevant air pollution regulatory requirements.

To promote clarity, consistency, and more practical outcomes in source determinations, EPA intends to focus on control (power or authority) over operations relevant to air pollution, and specifically control over such operations that could affect the applicability of, or compliance with, permitting requirements. EPA intends to examine whether the control exerted by one entity would determine whether a permitting requirement applies or does not apply to the other entity, or whether the control exerted by one entity would determine whether the other entity complies or does not comply with an existing permitting requirement. Thus, if "control" represents the power or authority of one entity to dictate a specific outcome at another entity (as described above), EPA considers the most relevant outcome to be the applicability of, or compliance with, air permitting requirements.

EPA considers this to be a reasonable policy, and a better approach, when determining common control in light of the applicable regulatory context. To start with, EPA's regulations reference air pollution-emitting activities when defining what constitutes a single source.[19] Definitions should not be read in isolation, however. Source determinations are made in the context of the NSR and title V permitting programs and their respective requirements pertaining to the control and monitoring of air pollution emissions. It logically follows, therefore, that the type of "control" most relevant to this inquiry is control over air pollution-emitting activities that trigger permitting requirements and affect compliance with those requirements. EPA therefore considers it appropriate to focus this inquiry on control over air pollution-emitting activities that could affect the applicability of, or compliance with, title V and NSR requirements.[20] If the authority one entity has over another cannot actually affect the applicability of, or compliance with, relevant permitting requirements, then the entities cannot control what permit requirements are applicable to each other, or whether another entity complies with its respective requirements. Effectively, this means that each entity has autonomy with respect to its own permitting obligations. It is more logical for such entities to be treated as separate sources, rather than being artificially grouped together for permitting purposes. EPA expects that any benefit that might be thought to be gained from the aggregation of entities that are effectively autonomous for permitting purposes would not "carry out reasonably the purposes" of the title V or NSR program. *See* 45 Fed. Reg. at 525694–95.[21]

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[19] *See, e.g.*, 40 C.F.R. § 52.21(b)(6) (defining "building, structure, facility, or installation" as "all of the *pollutant-emitting activities*" that are under common control, among other criteria (emphasis added)); 40 C.F.R. § 70.2 (clarifying that for the definition of "major source," considerations of major industrial group (SIC code) should focus on "all of the *pollutant emitting activities* at such source or group of sources" (emphasis added)); *id.* (defining "stationary source" as "any building, structure, facility, or installation *that emits or may emit* any regulated air pollutant or any pollutant listed under section 112(b) of the [CAA]") (emphasis added); 40 C.F.R. 52.21(b)(5) (similar definition of "stationary source" for NSR).

[20] EPA has previously articulated the importance of similar considerations, including "the power to make or veto decisions to implement major emission-control measures," and the power to influence "compliance with environmental regulations." Seitz Memorandum at 10 (citations omitted).

[21] First, although a more expansive reading of control could result in more sources being subject to title V, the purpose of the title V program is *not* to indiscriminately maximize the number of sources required to obtain operating permits—such as by requiring small sources that would otherwise not be subject to title V to obtain a

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Moreover, aggregating entities that cannot control decisions affecting applicability or compliance with permitting and other requirements would create practical difficulties and inequities. For title V purposes, it may be impossible for the responsible official of one entity to accurately certify the completeness of a permit application for a permit modification (*e.g.*, to incorporate requirements that are applicable to a new unit) that is entirely within the control of another entity, or to certify that the other entity has complied with existing permit requirements, as required by title V. *See* 40 C.F.R. § 70.5(a)(2), (c)(9)(i), (d). Similar problematic scenarios can arise under the NSR program as well. For instance, in order to determine whether a proposed physical or operational change would result in a "significant net emissions increase" and thus constitute a "major modification" at the source, an entity is required to identify and take account of all creditable emissions increases and decreases that had occurred source-wide during the relevant 5-year "contemporaneous" period. *See*, *e.g.*, 40 C.F.R. § 52.21(b)(3)(i)(*b*). It is not clear how it would even be possible for one entity to identify the creditable emissions increases and decreases that had occurred at that portion of the source under the control of another entity, much less determine whether NSR would be triggered by the proposed change.

More broadly, for both title V and NSR, an entity could face liability for the actions of another entity that were entirely outside the first entity's control if both entities were treated as part of the same source. This result would clearly be inequitable. Put simply, an entity that cannot "direct" or "cause the direction of" a specific decision or action by another entity does not have "control" and should not be subject to the consequences of that decision.[22] Focusing on control over decisions that could affect applicability or compliance with air quality permitting obligations avoids this potentially impractical and inequitable result while reasonably carrying out the purposes of the title V and NSR permitting programs.

In practice, evaluating common control will necessarily be a fact-specific inquiry. However, EPA believes the most relevant considerations should be whether entities have the power to direct the actions of other entities to the extent that they affect the applicability of and compliance with permitting requirements: *e.g.*, the power to direct the construction or modification of equipment that will result in emissions of air pollution; the manner in which such emission units operate; the installation or operation of pollution control equipment; and

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permit simply because of their business relationships with a title V source. Second, the purpose of the NSR program is not to maximize the number of sources subject to PSD requirements (*e.g.*, BACT) by aggregating multiple entities until their combined emissions exceed major source thresholds. That said, it would also not be appropriate to rely on EPA's current approach to artificially separate a source into multiple sources in order to evade major source status or otherwise circumvent title V or NSR requirements. Third, the purposes of the NSR program would not be fulfilled by allowing entities to intentionally (or unintentionally) over-aggregate, in order to share the benefits of emissions reductions (*e.g.*, accounting for emission reductions in determining a significant net emissions increase) at sources that do not have any control over each other's permitting obligations. EPA's current approach is intended to avoid these outcomes that are incongruent with the purposes of the title V and NSR programs by aggregating only those activities that accurately reflect a "common sense notion of a plant" from a permitting standpoint.

[22] For example, if Entity A has no ability to dictate the relevant decisions of Entity B that would subject Entity B to new regulatory requirements or that would affect Entity B's compliance with existing requirements, it would be inequitable to subject Entity A to such new requirements or hold Entity A responsible for Entity B's compliance with existing requirements. Only if Entity A has the ability to dictate an action by Entity B that could result in permitting-related liability for either entity, should Entity A be held responsible for Entity B's action (by virtue of being considered the same source).

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monitoring, testing, recordkeeping, and reporting obligations. On the other hand, common control considerations should not focus on the power to direct aspects of an entity's operations that are wholly unrelated to air pollution permitting requirements. If one entity has power or authority over some aspect of another entity's operations that would have no impact on pollutant-emitting activities of the stationary source subject to permitting requirements, EPA does not consider that fact to be relevant to determining whether the two entities should be considered a single source for air quality permitting purposes (*e.g.*, one entity providing security for both its facility and for an adjacent facility belonging to another entity).

Overall, focusing on the power to direct decisions over air pollution-related activities that could affect permitting obligations (*i.e.*, applicability or compliance) is reasonable, and a better approach to determining whether there is common control in the context of title V and NSR permitting. EPA expects that this approach will produce more consistent and sensible outcomes. Accordingly, EPA will generally view common control to exist in situations where entities lack the power or authority to make independent decisions that could affect the applicability of, or compliance with, relevant regulatory requirements concerning air pollution.

C. Dependency relationships should not be presumed to result in common control.

It is important, in evaluating whether common control might be said to exist due to the existence of a dependency relationship between entities, not to confuse this evaluation with the altogether separate issue of whether one entity is a "support facility" for another entity. Questions arising out of the consideration of the latter issue are directly accommodated within a distinct element of the source determination framework: the industrial grouping (2-digit SIC code) prong.[23] EPA has previously stated that "a support facility analysis is only relevant under the SIC-code determination." *In the Matter of Anadarko Petroleum Corp., Frederic Compressor Station*, Order on Petition no. VIII-2010-4 at 16 (February 2, 2011). This important distinction aside, a dependency relationship should not be presumed to result in common control. While mutually beneficial arrangements that give rise to dependency relationships could give one facility influence over the operations of another, entities can be economically or operationally interconnected or mutually dependent through contracts or other business arrangements without having the power or authority to direct the relevant activities of each other. To the extent that the same underlying facts should be weighed in evaluating common control, these considerations should generally be evaluated as outlined above to determine whether one entity has the power or authority to dictate the decisions of another entity (and not simply to determine whether a dependency relationship exists).

[23] As EPA has explained, both primary and support facilities are to be assigned the same 2-digit SIC code. 45 Fed. Reg. at 52695; *see also* 1987 SIC Code Manual at 16–17 ("Each operating establishment is assigned an industry code on the basis of its primary activity . . . . Auxiliary establishments are assigned four-digit industry codes on the basis of the primary activity of the operating establishments they serve."). In the PSD rulemaking process conducted from 1979 to 1980, EPA decided to accommodate considerations of support or functional interrelatedness as part of the major industrial grouping (2-digit SIC code) prong, as opposed to establishing this as an independent component of the source determination analysis. *See* 45 Fed. Reg. 52676, 52695 (August 7, 1980). In so doing, EPA did not indicate that support or functional interrelatedness considerations should be made in the context of other discrete elements of the source determination framework (*i.e.*, the common control or adjacency prongs).

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A number of practical considerations support this separation. First, the fact that economic conditions are such that one entity depends on another facility does not necessarily mean that it has the power or authority to direct the decisions of, or that its decisions are directed by, that other facility on which it depends. Second, the fact that one facility would not profitably exist *but for* the existence of another entity does not necessarily mean that, at some point after beginning operation, the entities will have the power or authority to dictate the outcome of decisions regarding relevant air-pollution related aspects of each other's operations. These situations should be evaluated in light of the principles discussed above, and inquiries concerning common control should not be sidestepped by presuming control based on the presence of a dependency relationship.

V. Evaluation of Meadowbrook and KSL Under Revised Interpretation and Policy for Common Control

Applying the interpretation of "common control" and the policy of focusing on air permitting requirements described above, based on the information provided by Meadowbrook,[24] EPA would not view the Meadowbrook and KSL facilities to be under common control. First, regarding control over KSL's landfill, it does not appear that Meadowbrook has power or authority to dictate decisions over any aspect of KSL's operations that could affect the applicability of, or compliance with, permitting requirements. Specifically, Meadowbrook does not have the power or authority to determine whether KSL complies with regulatory requirements associated with its LFG (*i.e.*, the Subpart WWW NSPS) that are applicable requirements within KSL's title V permit. Of course, Meadowbrook can indirectly affect KSL's operations by declining to take delivery of all of KSL's LFG at the demarcation point (or by ceasing operations). This means that Meadowbrook's actions (accepting or not accepting the LFG) would effectively dictate whether KSL does or does not destroy its LFG via its flares. Because Meadowbrook can effectively dictate this outcome at KSL, this could arguably be considered a form of control over this aspect of KSL's operations. However, this limited amount of control would not be over operations that EPA finds most relevant. Importantly, Meadowbrook will not affect KSL's ability to comply with its regulatory obligations since KSL retains the ability to redirect its LFG to flares operated exclusively by KSL and Meadowbrook has no power or authority over how KSL operates such flares.[25] Because Meadowbrook therefore has no power or authority over KSL's operations of the sort that EPA deems most relevant, *i.e.*, KSL's ability to comply with relevant permitting requirements, EPA's view is that

[24] EPA notes that some of the analysis initially provided by Meadowbrook and supplemented in its March 16, 2018, analysis is based on an agreement between Meadowbrook and KSL that is subject to revision. EPA's analysis below is based on the representations provided by Meadowbrook, and should not be interpreted as a complete evaluation of all facts that may be relevant to the question of common control. PADEP, as the permitting authority, is responsible for making a source determination based on all relevant facts, which may extend to current factual considerations that were not included in Meadowbrook's analysis, or to facts that eventually differ from those that Meadowbrook predicted at the time of its March 16, 2018, submittal.

[25] This situation is no different from a landfill that utilizes flares as a control device and naturally has no other options to dispose of its LFG (*e.g.*, no ability to send the LFG to a treatment facility or energy generating facility). In either case, even if the landfill has only one general option to dispose of its gas (flaring), it would nonetheless likely retain complete control over whether and how it does so (including whether it complies with relevant regulatory requirements when doing so).

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Meadowbrook does not control KSL simply because KSL will ordinarily rely on Meadowbrook as a means of disposing of its LFG.[26] There is no indication that Meadowbrook has any power or authority over other activities occurring at KSL.[27]

Second, regarding control over Meadowbrook's operations, although KSL supplies Meadowbrook with a potentially large percentage of the feedstock (LFG) that Meadowbrook processes into a product for market (pipeline-quality renewable natural gas), it does not appear that this arrangement gives KSL power or authority over Meadowbrook's operations. Operations at KSL could ultimately affect the amount of LFG available to Meadowbrook, and thus, could indirectly affect the air emissions that ultimately occur at Meadowbrook in the course of processing the LFG. But it does not appear that Meadowbrook is contractually obligated to purchase the full output of KSL (although this may typically be the case).[28] Moreover, Meadowbrook indicated that it is actively pursuing other suppliers of feedstock, such that KSL will likely not be the only supplier of LFG (or other gas feedstock) to KSL. Thus, KSL does not have the power or authority to determine the amount of gas received (and therefore processed) by Meadowbrook. To the extent that decisions by KSL could indirectly impact air emissions at Meadowbrook, there is no indication that this would give KSL power or authority over any of Meadowbrook's air pollution-related operations, much less affect any permitting obligations applicable to Meadowbrook. At most, this amounts to influence, not control. Therefore, it would be appropriate to conclude that KSL does not control Meadowbrook in the sense relevant for determining whether the two entities' facilities constitute a single source. KSL simply supplies a feedstock product to Meadowbrook through an arm's length contract. KSL has no power or authority to direct other aspects of Meadowbrook's operations, including the means by which Meadowbrook generates and controls emissions.

Although Meadowbrook and KSL have at least influence over each other's operations, neither has "control" (as this term is interpreted above) over decisions that could affect air permitting obligations of the other. Rather, this appears to be, as Meadowbrook claimed, a mutually beneficial arms-length arrangement between two wholly-separate business entities. Therefore, EPA does not recommend that Meadowbrook and KSL be considered to be part of the same stationary source or major source on the basis of common control. However, as the permitting authority, PADEP retains the ultimate discretion to make source determinations based on its EPA-approved title V and NSR rules.

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[26] This conclusion is premised on Meadowbrook's representation that KSL's permit would not be modified in such a manner that Meadowbrook would have the power or authority to dictate whether KSL complies with its permit terms.

[27] Although Meadowbrook may supply funding or other resources to KSL for purposes of optimizing KSL's landfill gas recovery system, Meadowbrook's representations suggest that KSL would nonetheless retain complete control over this optimization process, and that Meadowbrook would not control any aspect of the LFG collection process. Additionally, the limited information presented by Meadowbrook regarding its potential future use of KSL's leachate, condensate, and wastewater treatment systems at market prices does not indicate that this would result in Meadowbrook's control over this aspect of KSL's operations. However, this arrangement may warrant further evaluation as Meadowbrook and KSL finalize their plans.

[28] As noted above, Meadowbrook indicated that it is only required to accept as much LFG as Meadowbrook can process.

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Message

From: Snyder, Doug [Snyder.Doug@epa.gov]
Sent: 5/8/2019 5:52:58 PM
To: Gardner, Allison [Gardner.Allison@epa.gov]
CC: Gordon, Michael [Gordon.Mike@epa.gov]; Stoltzfus, Robert [Stoltzfus.Robert@epa.gov]
Subject: FW: MSWL
Attachments: 1156000-1156981-https-ecf-cand-uscourts-gov-doc1-035117945431.pdf

Mike,

Isn't it great that you are acting manager when this happens?! Anyway, I forwarded this to Allison, the new branch chief, because she will ultimately decide. However, I think the answer is that Bob Stoltzfus and/or myself, and/or any other branch attorney who is needed to meet the court-ordered deadline, will work on these SIPs. You can count on us!

Doug

From: Gordon, Michael
Sent: Wednesday, May 08, 2019 1:48 PM
To: Snyder, Doug <Snyder.Doug@epa.gov>
Subject: MSWL

Hi Doug,

FYI…we got an adverse decision on landfills and are now under a 4 month court ordered deadline to finalize the WV and DE state plans. This is a fairly tight turnaround, especially if we get comments. Will you be the ORC contact? I have some questions on a state plan I am reviewing.

Mike Gordon
Acting Branch Chief
Permits Branch (3AD10)
Air and Radiation Division
EPA Region III
1650 Arch Street
Philadelphia, PA 19103
(215)-814-2039
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UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

STATE OF CALIFORNIA, et al., Plaintiffs, v. UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, et al., Defendants.	Case No. 18-cv-03237-HSG **ORDER GRANTING IN PART AND DENYING IN PART PLAINTIFFS' MOTION FOR SUMMARY JUDGMENT AND DENYING DEFENDANTS' MOTION FOR SUMMARY JUDGMENT** Re: Dkt. Nos. 87, 92

Pending before the Court are cross-motions for summary judgment filed by Plaintiffs[1] and Defendants U.S. Environmental Protection Agency and Andrew R. Wheeler,[2] in his official capacity as Acting Administrator of the U.S. Environmental Protection Agency (collectively, "EPA"), briefing for which is complete. Dkt. Nos. 87 ("Pls.' Mot."), 92 ("Defs.' Mot."), 93 ("Pls.' Reply"), 94 ("Defs.' Reply"). The parties agree there is no dispute that EPA failed to fulfill certain mandatory duties under 40 C.F.R. § 60.27. *See* Dkt. No. 58. The only questions before the Court is whether Plaintiffs have standing and, if so, how long to give EPA to comply with its long-overdue nondiscretionary duties.

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[1] Plaintiffs are eight states: the State of California, by and through the Attorney General and the California Air Resources Board; the State of Illinois; the State of Maryland; the State of New Mexico; the State of Oregon; the Commonwealth of Pennsylvania; the State of Rhode Island; and the State of Vermont. Dkt. No. 1 ¶¶ 1, 10–18. Plaintiffs also include the Environmental Defense Fund ("EDF"), which the Court permitted to intervene on November 20, 2018. *See* Dkt. No. 78. EDF has represented to the Court that it only intends to proceed in this action under the existing complaint filed by the States. *See* Dkt. No. 78 at 7 n.3.

[2] Acting Administrator Wheeler is automatically substituted for former Administrator Scott Pruitt. *See* Fed. R. Civ. P. 25(d).

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I. BACKGROUND

A. Landfill Emissions

The relevant facts in this case are not in dispute. "The United States produces roughly 265 million tons of solid waste annually, or 4.5 pounds per person, per day . . . ." Dkt. No. 1 ("Compl.") ¶ 27; Dkt. No. 91 ("Answer") ¶ 27. Emitted from solid waste landfills are numerous harmful pollutants, including not only greenhouse gases but also "nearly thirty different organic hazardous air pollutants," which "present a range of public health and safety concerns." Compl. ¶¶ 28, 36; Answer ¶¶ 28, 36. These hazardous air pollutants "are known to cause adverse health effects . . . including heart attacks, asthma, and acute bronchitis leading to premature mortality." Compl. ¶ 36; Answer ¶ 36.

One such greenhouse gas is methane, a potent pollutant and the leading greenhouse gas behind carbon dioxide, which—along with other human-generated greenhouse gases—is "a significant driver of observed climate change." Compl. ¶¶ 2, 29; Answer ¶¶ 2, 29. Municipal solid waste landfills in particular "are the third-largest source of [domestic] human-related methane emissions." Compl. ¶ 29; Answer ¶ 29.

B. Landfill Emission Regulations

The Clean Air Act ("CAA" or the "Act") "protect[s] and enhance[s] the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population." 42 U.S.C. § 7401(b)(1).[3] To that end, the Act directs the EPA Administrator to "publish . . . a list of categories of stationary sources" that "in [the Administrator's] judgment . . . cause[], or contribute[] significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare." *Id.* § 7411(b)(1)(A). Once the agency includes a category of stationary sources in the list, the agency must "publish proposed regulations, establishing Federal standards of performance" for emission of pollutants from new or modified sources "within such category." *Id.* § 7411(b)(1)(B); *see also id.* § 7411(a)(2).

As relevant here, the Act also requires the regulation of "existing sources" that fall within

[3] All statutory citations are to the Clean Air Act, 42 U.S.C. § 7401 *et seq.*, unless otherwise stated.

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the same category, provided that the emissions are not already covered by certain other CAA programs. *See id.* § 7411(d). Specifically, the CAA states that "[t]he 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 [that] establishes standards of performance," and "provides for the implementation and enforcement of such standards of performance." *Id.* § 7411(d)(1). The Act further provides that the Administrator has authority to promulgate a federal implementation plan "in cases where [a] State fails to submit a satisfactory plan." *Id.* § 7411(d)(2); *see also id.* § 7410(c).

Consistent with the CAA's instruction, EPA promulgated regulations, which established deadlines for the implementation of emission guidelines. According to the regulations, once EPA published an emission guideline, each State to which the guideline pertained was required to "adopt and submit to the Administrator . . . a plan" to implement the guideline "[w]ithin nine months." 40 C.F.R. § 60.23(a). The agency then was required to "approve or disapprove" such implementation plans "within four months after the date required for submission of a plan or plan revision." *Id.* § 60.27(b). Last, if states to which the guideline pertained did not submit an implementation plan or EPA disapproved of a submitted plan, the Administrator was required, "within six months after the date required for submission of a plan or plan revision, [to] promulgate [a federal plan]" to implement the guideline. *Id.* § 60.27(d).

On August 29, 2016, EPA promulgated a final rule related to Municipal Solid Waste ("MSW") landfills. *Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills*, 81 Fed. Reg. 59,276 (Aug. 29, 2016) ("Landfill Emissions Guidelines"). The Landfill Emissions Guidelines were the result of decades of consideration, as EPA first proposed rules regulating such emissions in 1991. Compl. ¶ 38; Answer ¶ 38. And in 1996, EPA promulgated landfill emission guidelines, which explained that landfill emissions are "a significant source of air pollution" and that the guidelines aimed to "significantly reduce landfill gas emissions, which have adverse effects on human health and welfare." *Standards of Performance for New Stationary Sources and Guidelines for Control of Existing Sources: Municipal Solid Waste Landfills*, 61 Fed. Reg. 9,905, 9,909, 9,918 (Mar. 12, 1996). The Administrator in particular determined "that

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municipal solid waste landfills cause, or contribute significantly to, air pollution that may reasonably be anticipated to endanger public health or welfare." *Id.* at 9905.

The Landfill Emissions Guidelines became effective on October 28, 2016. In turn, according to EPA's regulations:

1. States were required to submit implementation plans by May 30, 2017, *see* 40 C.F.R. § 60.23(a)(1);
2. EPA was required to approve or disapprove submitted plans by September 30, 2017, *see* 40 C.F.R. § 60.27(b); and
3. If either (i) states to which the guideline pertained did not submit implementation plans, or (ii) EPA disapproved a submitted plan, then EPA was required to promulgate a federal plan by November 30, 2017, *see* 40 C.F.R. § 60.27(d).

As of May 30, 2017, EPA received implementation plans as described by the regulations from California and two from New Mexico—one covering Albuquerque and Bernalillo County and another covering the rest of New Mexico. Defs.' Mot. at 1–2 & n.2 (citing Dkt. No. 92-1 ("Lassiter Decl.") ¶ 15); *see also* Dkt. No. 58 ¶ 2. Subsequently, EPA received implementation plans from Arizona (one covering Maricopa County and another covering the remainder of the state), Delaware, and West Virginia. Defs.' Mot. at 1–2 & n.2 (citing Lassiter Decl. ¶ 15); *see also* Dkt. No. 58 ¶ 2. To date, EPA has neither approved or disapproved of any submitted plans nor promulgated a federal plan. Dkt. No. 58 ¶¶ 1–2. Accordingly, Plaintiffs brought this action, which asks this Court to "[i]ssue a declaratory judgment that, by failing to implement and enforce the Emission Guidelines, EPA has violated the Clean Air Act;" and "[i]ssue a mandatory injunction compelling EPA to implement and enforce the Emission Guidelines." Compl. at 19.

II. LEGAL STANDARD

Summary judgment is appropriate if, viewing the evidence and drawing all reasonable inferences in the light most favorable to the nonmoving party, "there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law." Fed. R. Civ. P. 56(a); *Celotex Corp. v. Catrett,* 477 U.S. 317, 322 (1986).

The parties agree that this case is properly resolved on their cross-motions for summary judgment. Pls.' Mot. at 1; Defs.' Mot. at 6. When there is no dispute that an agency failed to timely fulfill a nondiscretionary obligation, summary judgment is the appropriate mechanism to

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determine when compliance is due. *See, e.g., In re Ozone Designation Litig.*, 286 F. Supp. 3d 1082, 1085 (N.D. Cal. 2018) (setting deadlines for EPA to comply with mandatory duties under the CAA at summary judgment). In those situations, courts generally have broad equitable discretion to fix an appropriate deadline. *See Nat. Res. Def. Council v. Sw. Marine, Inc.*, 236 F.3d 985, 999–1000 (9th Cir. 2000). That said, if Congress found that a certain amount of time was appropriate for the agency to complete its statutory duty in the first instance, that timeframe generally still controls. *Sierra Club v. Thomas,* 658 F. Supp. 165, 171 (N.D. Cal. 1987).

Courts should not, however, demand a deadline for agency compliance that is impossible or infeasible. *Nat. Res. Def. Council, Inc. v. Train,* 510 F.2d 692, 713 (D.C. Cir. 1974) ("The sound discretion of an equity court does not embrace enforcement through contempt of a party's duty to comply with an order that calls for him to do an impossibility.") (internal quotation omitted). To determine whether a deadline is infeasible, the Court should consider: (1) whether the "budgetary" and "manpower demands" required are "beyond the agency's capacity or would unduly jeopardize the implementation of other essential programs"; and (2) an agency's need to have more time to sufficiently evaluate complex technical issues. *Id.* at 712–13. A delinquent agency, though, bears an "especially heavy" burden of showing infeasibility. *Thomas,* 658 F. Supp. at 172.[4]

III. DISCUSSION

EPA admits that it has failed to meet its nondiscretionary obligations to implement the Landfill Emissions Guidelines, as compelled by the CAA. *See* Dkt. No. 58. For that reason, the Court enters the declaratory judgment of liability requested by Plaintiffs. *See* Compl. at 19(1). Plaintiffs also ask the Court to compel EPA immediately to perform its nondiscretionary duties under the Landfill Emissions Guidelines. *Id.* at 19(2).

EPA does not dispute that it has failed to perform its nondiscretionary duties. Dkt. No. 58 ¶¶ 1–2. Nor does it dispute that this Court has authority to "enter an order setting a deadline for

[4] Plaintiffs suggest that this Court should adopt an "impossibility" standard, rather than an "infeasibility" standard. Pls.' Reply at 12. Although courts have explained that agency officials should not be required to do the impossible, the Ninth Circuit does not appear to have held that courts should impose Plaintiffs' requested standard.

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EPA to perform an obligation for which it admits liability." *See* Defs.' Mot. at 6. EPA argues, however, that (1) Plaintiffs lack standing, and (2) Plaintiffs' proposed deadlines are not feasible.

A. State Plaintiffs Have Standing

EPA contends that neither the State Plaintiffs nor the intervenor-Plaintiff EDF have standing to sue. Because the Court finds the State Plaintiffs have standing, it need not evaluate whether EDF has standing. *See Rumsfeld v. Forum for Acad. & Institutional Rights, Inc.*, 547 U.S. 47, 52 n.2 (2006) ("[T]he presence of one party with standing is sufficient to satisfy Article III's case-or-controversy requirement."); *Int'l Brotherhood of Teamsters v. U.S. Dep't of Transp.*, 861 F.3d 944, 951 (9th Cir. 2017) (declining to evaluate whether co-petitioners had standing).

1. Legal Standard

A plaintiff seeking relief in federal court bears the burden of establishing the "irreducible constitutional minimum" of standing. *Spokeo, Inc. v. Robins*, 136 S. Ct. 1540, 1547 (2016) (quoting *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 560 (1992)). First, the plaintiff must have "suffered an injury in fact." *Spokeo*, 136 S. Ct. at 1547. This requires "an invasion of a legally protected interest" that is concrete, particularized, and actual or imminent, rather than conjectural or hypothetical. *Lujan*, 504 U.S. at 560 (internal quotation marks omitted). Second, the plaintiff's injury must be "fairly traceable to the challenged conduct of the defendant." *Spokeo*, 136 S. Ct. at 1547. Third, the injury must be "likely to be redressed by a favorable judicial decision." *Id.* (citing *Lujan*, 504 U.S. at 560–61). "States are not normal litigants for the purposes of invoking federal jurisdiction" and are "entitled to special solicitude in [the] standing analysis." *Massachusetts v. EPA*, 549 U.S. 497, 518–20 (2007).

2. Analysis

The Court finds the State Plaintiffs are entitled to "special solicitude" under *Massachusetts v. EPA*. The Supreme Court there held that Massachusetts had standing to contest EPA's decision not to regulate greenhouse-gas emissions that allegedly contributed to a rise in sea levels and a loss of coastal land. *Massachusetts v. EPA*, 549 U.S. at 526. It was "of considerable relevance" to the Court "that the party seeking review [was] a sovereign State and not . . . a private individual" because "States are not normal litigants for the purposes of invoking federal jurisdiction." *Id.* at

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518. The Court then identified two other factors that entitled Massachusetts "to special solicitude in [the Court's] standing analysis." *Id.* at 520. The first was that the CAA created a procedural right to challenge EPA's conduct:

> The parties' dispute turns on the proper construction of a congressional statute, a question eminently suitable to resolution in federal court. Congress has moreover authorized this type of challenge to EPA action. That authorization is of critical importance to the standing inquiry: Congress has the power to define injuries and articulate chains of causation that will give rise to a case or controversy where none existed before. In exercising this power, however, Congress must at the very least identify the injury it seeks to vindicate and relate the injury to the class of persons entitled to bring suit. We will not, therefore, entertain citizen suits to vindicate the public's nonconcrete interest in the proper administration of the laws.

Id. at 516–17 (internal quotation marks and citations omitted). The second was that EPA's decision affected Massachusetts's "quasi-sovereign" interest in its territory:

> When a State enters the Union, it surrenders certain sovereign prerogatives. Massachusetts cannot invade Rhode Island to force reductions in greenhouse gas emissions, it cannot negotiate an emissions treaty with China or India, and in some circumstances the exercise of its police powers to reduce in-state motor-vehicle emissions might well be pre-empted.
>
> These sovereign prerogatives are now lodged in the Federal Government, and Congress has ordered EPA to protect Massachusetts (among others) by prescribing standards applicable to the "emission of any air pollutant from any class or classes of new motor vehicle engines, which in [the Administrator's] judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare."

Id. at 519–20 (citation omitted) (quoting 42 U.S.C. § 7521(a)(1)).

As was the case in *Massachusetts v. EPA*, the State Plaintiffs here "are not normal litigants" for purposes of federal jurisdiction. *Id.* at 518. And just as Congress afforded Massachusetts a right to challenge EPA's decision not to regulate greenhouse-gas emissions, Congress afforded the State Plaintiffs here the right to challenge EPA's failure to perform its nondiscretionary duties. *Compare id.* at 517 (finding the procedural right afforded under 42 U.S.C. § 7607(b)(1)), *with* 42 U.S.C. § 7604(a)(2) (affording the present procedural right).

Despite *Massachusetts v. EPA*'s clear applicability, EPA argues that the State Plaintiffs

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lack standing for failure to plead causation, and relatedly, redressability. Defs.' Mot. at 9 ("[T]he States fail to demonstrate either a sufficient causal connection between EPA's inaction and the alleged injuries to the States' sovereign interests (fairly traceable) or the requested relief (redressability)."). To this end, EPA relies exclusively on *Washington Environmental Council v. Bellon*, 732 F.3d 1131 (9th Cir. 2013), in which the Ninth Circuit found the plaintiffs' alleged injuries were too attenuated to the climate change caused by the defendants' conduct to support causation. Defs.' Mot. at 10–11.

The Court finds EPA's reliance on *Bellon* unavailing. First, the *Bellon* Court explained that its holding was based on two factors: (1) plaintiffs there were not sovereigns; and (2) unlike in *Massachusetts v. EPA*, the plaintiffs did not provide evidence that the relevant emissions had a "meaningful contribution" on greenhouse-gas levels. 732 F.3d at 1145–46. Neither factor is present here. As detailed above, the parties do not dispute that the United States "produces roughly 265 million tons of solid waste annually," and that emissions from solid waste landfills contain numerous harmful pollutants. *See* Answer ¶ 27. And the parties do not dispute that solid waste landfills "are the third-largest source of [domestic] human-related methane emissions" and that methane is the leading greenhouse gas behind carbon dioxide. *Id.* ¶¶ 2, 29. Further, the Landfill Emissions Guidelines themselves—promulgated by EPA—detail the meaningful contribution of landfill emissions to harmful pollution. *See* 81 Fed. Reg. at 59,276–77. And the EPA Administrator long ago determined "that municipal solid waste landfills cause, or contribute significantly to, air pollution that may reasonably be anticipated to endanger public health or welfare." 61 Fed. Reg. at 9,905. "Where Congress has expressed the need for specific regulations relating to the environment, that expression supports an inference that there is a causal connection between the lack of those regulations and adverse environmental effects." *Nat. Res. Def. Council v. EPA*, 542 F.3d 1235, at 1248 (9th Cir. 2008) (*NRDC*).[5]

For these reasons, the Court rejects EPA's causation challenge. The Court similarly rejects EPA's redressability challenge, which is entirely derivative of its causation challenge. *See* Defs.'

[5] EPA made no effort to distinguish *NRDC* in either the briefing or at the hearing on these motions.

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Mot. at 12–13.

B. Deadlines

Because the Court finds the State Plaintiffs have standing, the sole remaining issue is what timetable to impose on EPA for it to complete its long-overdue nondiscretionary duties. The parties each submitted proposed timetables. Plaintiffs request "strict guidelines," including that EPA be ordered to (1) review existing state plans within thirty days, (2) promulgate a federal plan within five months, (3) respond to any future state plans within sixty days of submission, and (4) file status reports every sixty days. Pls.' Mot. at 17–22. EPA requests (1) four to twelve months to review existing state plans, (2) twelve months to promulgate a federal plan, and (3) that the Court deny Plaintiffs' request for imposition of deadlines for future state plans. Defs.' Mot. at 17–25. In support of its timetables, EPA submits the Declaration of Penny Lassiter, the Acting Director of the Sector Policies and Programs Division within the Office of Air Quality Planning and Standards, Office of Air and Radiation at EPA. Lassiter Decl. ¶ 2.

As a preliminary matter, Plaintiffs argue that strict deadlines are warranted due to EPA's longstanding recalcitrance. Pls.' Mot. at 17–18. In Plaintiffs' view, "[a] court order setting specific and expeditious deadlines is needed to ensure EPA follows the law." *Id.* at 18. There is no denying EPA's clear failure to meet its nondiscretionary duties. But that alone does not dictate deadlines. The Court is now faced with the question of feasibility. And nothing about past recalcitrance in any practical sense changes the feasibility of timelines moving forward. To be sure, EPA's delinquency means that it has an "especially heavy" burden of showing infeasibility. *Thomas,* 658 F. Supp. at 172. But recalcitrance does not render feasible what is otherwise infeasible.

Plaintiffs also ask the Court to reject EPA's representation that it is short-staffed, because the President's recent budget request seeks to reduce EPA's funding. Pls.' Reply at 14. Again, this claim does not solve the issue at hand. As EPA notes, "the budget request is just that: the Executive's request to Congress." Defs.' Reply at 6. More important, that the President may seek to reduce EPA's future funding does not change EPA's present capabilities.

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1. Existing State Plans

EPA received state plans from five states: California, New Mexico, Arizona, Delaware, and West Virginia. Lassiter Decl. ¶ 13. Two plans are in EPA Region 3: Delaware and West Virginia. *Id.* Two plans are in EPA Region 6: Albuquerque/Bernalillo County, New Mexico; and the rest of New Mexico. *Id.* Three plans are in EPA Region 9: Maricopa County, Arizona; the rest of Arizona; and California. *Id.*

Ms. Lassiter details five phases to the rulemaking process for state plan approval or disapproval: (1) review and analysis of submitted state plan; (2) development of rule proposal package; (3) proposed rule publication and public comment period; (4) summarization of comments, development of comment responses; and (5) development of final rule package. *Id.* ¶¶ 17–22. Ms. Lassiter provides a summary of the tasks necessary to complete each phase as well as an estimate of how long she estimates EPA will need to complete those tasks for each regional office, given that individual regional offices "review and approve or disapprove individual state plans." *Id.* ¶ 14. Each estimate purportedly represents the "minimum time" to complete a phase. *See id.* ¶ 10.

Plaintiffs argue that EPA needs no more than thirty days to review existing state plans, as most of the state plans are less than twenty-five pages and incorporate by reference federal standards. Pls.' Mot. at 19. EPA counters that Plaintiffs' thirty-day proposal "is patently unreasonable" because, among other things, "the required public notice and comment period and response to public comments cannot be completed in less than 45 days." Defs.' Mot. at 17. EPA adds that the presumptively reasonable timeframe is the four months afforded under the regulations. *Id.* And indeed, EPA proposes a four-month timeframe for completing its review of state plans outside of EPA Region 9.

EPA, however, proposes dramatically protracted deadlines for state plans from within EPA Region 9, without a satisfactory explanation. Ms. Lassiter claims that EPA Region 9 is "operating with seriously reduced resources; [has] a significant existing backlog of actions to complete; and [has] limited staff expertise in the MSW landfill source category." Lassiter Decl. ¶ 16. EPA adds that although California submitted a plan it considers "equivalent" to the relevant requirements

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underlying the Landfill Emission Guidelines, EPA "anticipates that a line-by-line analysis will be necessary to determine" if that is true because California's existing program predates the relevant requirements. *Id.* EPA contends that these factors support an eight-month timeframe for the Arizona proposals and a twelve-month timeframe for the California proposal.

The Court takes EPA's representations about the phases required to conduct rulemaking for final action on state plans at face value and proceeds to analyze its proposed timetables on a phase-by-phase basis. In the review-and-analysis phase (Phase I), EPA Regions review the state plans "to determine whether [they] conform[] to the applicable statutory and regulatory requirements." Lassiter Decl. ¶ 18. EPA estimates that this phase will take fifteen days for state plans submitted in regions outside of EPA Region 9, thirty-five days for the Arizona plans, and sixty-five days for the California plan. *Id.* Tbls. 1–2. For the development of rule proposal package phase (Phase II), EPA performs some technical analysis, briefs the Regional EPA Administrator, and drafts regulatory text ultimately leading to a proposed rule. *Id.* ¶ 19. EPA uses a "tiering" approach at this phase, based on the complexity of the rulemaking actions, and concedes that the present "types of rulemakings" typically fall in the least complex category. *Id.* Nonetheless, EPA estimates that this phase will take thirty days for state plans submitted in regions outside of EPA Region 9, forty days for the Arizona plans, and seventy-five days for the California plan. *Id.* Tbls. 1–2. The next phase is the notice and comment period (Phase III), which is the ordinary period for public comment on the approval or disapproval of state plans. *Id.* ¶ 20. Publication in the Federal Register typically takes two weeks, after which the public comment period is thirty days. *Id.* EPA thus estimates that this phase will take forty-five days for all state plans. *Id.* Tbls. 1–2. Following notice and comment is the summarization of comment phase (Phase IV), wherein EPA "drafts a comment summary document." *Id.* ¶ 21. EPA estimates that this phase will take fifteen days for state plans submitted in regions outside of EPA Region 9, sixty days for the Arizona plans, and 120 days for the California plan. *Id.* Tbls. 1–2. Last is the final rule phase (Phase V), which includes briefing the Regional EPA management and producing the final regulatory package. *Id.* ¶ 22. EPA estimates that this phase will take fifteen days for state plans submitted in regions outside of EPA Region 9 and sixty days for the Arizona and

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California plans. *Id.* Tbls. 1–2.

The Court begins by adopting the four-month deadline for state plans outside of EPA Region 9, which is the presumptively reasonable timeframe. Turning then to state plans within EPA Region 9, EPA has an "especially heavy" burden to prove that it is infeasible to approve or disapprove state plans in four months. *Thomas,* 658 F. Supp. at 172. The Court finds EPA has not met this burden.

Starting with Phase I, EPA's fifteen-day estimate for non-Region 9 plans seems imminently reasonable for the Region 9 plans as well. Although Ms. Lassiter claims that EPA may need to conduct a thorough review, including potentially a "line-by-line" analysis of California's plan, *see* Lassiter Decl. ¶ 16, the California plan is twenty pages long, *see* Dkt. No. 87-13. The Court sees no reason why even a line-by-line analysis of a twenty-page document requires sixty-five days, as EPA suggests.

As to Phase II, EPA only indicates that more time is needed in Region 9 because of "resource constraints" and "a backlog" of other work. Defs.' Mot. at 21. The Court finds two flaws in this explanation. First, these points are true for both the Arizona plans and the California plan, and yet EPA does not explain why it purportedly needs thirty-five *more* days for the California plan. Second, Ms. Lassiter concedes in her declaration that under EPA's "tiering" approach, the rulemaking actions at issue here fall within the least complex category of actions. Accepting that as true, the Court finds the thirty days EPA proposes for non-Region 9 state plans is reasonable across the board.

Turning next to Phase III, Plaintiffs contend that EPA could avoid a full-blown notice-and-comment process by approving the state plans with a "direct final rule," which would be effective "without requiring further notice." Pls.' Reply at 13 (citing *Approval and Promulgation of State Plans for Designated Facilities and Pollutants: California*, 64 Fed. Reg. 51,447, 51,447, 51,449–50 (Sept. 23, 1999)). As EPA responds, however, "it is not clear that [the discretionary direct final rule mechanism] is appropriate" and, more important, the exemplary direct final rule Plaintiffs cite states that the reception of adverse comments would render a direct final rule ineffective. Defs.' Reply at 2; *see also* 64 Fed. Reg. at 51,447 ("If EPA receives such comments, then it will publish

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a timely withdrawal in the Federal Register informing the public that this rule will not take effect."). The Court thus finds it unreasonable to mandate that EPA employ the direct final rule mechanism.

As to Phase IV, EPA provides no explanation whatsoever for why it can complete the summarization phase for state plans outside of Region 9 in fifteen days, but needs *sixty* days for the Arizona plans and *120* days for the California plan. *See* Defs.' Mot. at 21 (stating summarily that "Phase IV . . . will take 60 and 120 days, for the Arizona plans and the California plan, respectively"). The Court finds that EPA has not met its "especially heavy" burden of demonstrating it needs more than fifteen days with such conclusory statements. *See Thomas,* 658 F. Supp. at 172.

Last, as to Phase V, EPA again provides no explanation whatsoever for why it can complete the final rule phase for state plans outside of Region 9 in fifteen days, but needs sixty days for the Arizona and California plans. *See* Defs.' Mot. at 21 ("For the same reasons, Phase V, development of final rule package, is estimated to take 60 days."). The Court again finds that EPA has not met its "especially heavy" burden of demonstrating it needs more than fifteen days with such conclusory statements. *See Thomas,* 658 F. Supp. at 172.

For these reasons, the Court adopts the four-month timetable EPA set forth for state plans outside of Region 9, but finds that EPA must meet the same timetable for plans within Region 9.

2. Federal Plan

Although the presumptively reasonable timeframe to promulgate a federal plan is six months—given the regulations—Plaintiffs argue that EPA needs no more than five months to propose a single federal plan, receive comments, and finalize it. Pls.' Mot. at 20–21. EPA counters that it needs twelve months—twice the regulatory timeframe. *See* Defs.' Mot. at 21–25. To this end, Ms. Lassiter details six phases to the rulemaking process for finalizing a federal plan, which are the same five phases described for action on state plans "plus a prefatory project kick-off phase." *Id.* at 21 (citing Lassiter Decl. ¶¶ 23–24). Ms. Lassiter again provides a summary of the tasks necessary to complete each phase as well as an estimate of how long she estimates EPA will need to complete those tasks. *Id.* ¶¶ 23–29.

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Although the Court takes EPA's representations about the phases required to conduct rulemaking for final action on a federal plan at face value, it rejects EPA's overall timetable for promulgation of a federal plan. Due to EPA's delinquency, it bears an "especially heavy" burden to prove that six months is infeasible. *See Thomas,* 658 F. Supp. at 172. Merely describing what tasks must be performed in the various phases as EPA does is thus unhelpful, as those steps presumably have always been required. It is EPA's burden to go beyond a description of the process and instead explain why it cannot complete the process within six months. And on this point EPA cites to only one factor: EPA staff members "with responsibility for rule writing" and the requisite knowledge and expertise "required for the development of a federal plan . . . are working on" other matters with court-ordered deadlines. Defs.' Mot. at 24–25 (citing Lassiter Decl. ¶¶ 10, 12); *see also Cmty. In-Power & Dev. Ass'n, Inc. v. Pruitt*, 304 F. Supp. 3d 212, 225 (D.D.C. 2018) (ordering EPA "to complete all nine overdue rulemakings no later than October 1, 2021"); *Blue Ridge Envtl. Def. League v. Pruitt*, 261 F. Supp. 3d 53, 61 (D.D.C. 2017) (ordering EPA "to complete RTRs [Risk and Technology Reviews] for at least 7 overdue source categories by December 31, 2018, and to complete the remaining 6 RTRs by June 30, 2020"); *Cal. Cmtys. Against Toxics v. Pruitt*, 241 F. Supp. 3d 199, 207 (D.D.C. 2017) (ordering EPA to perform overdue rulemaking as to "20 source category RTRs within three years"). Put differently, EPA seeks additional time to complete a nondiscretionary duty it failed to meet until ordered to act by the Court, because it faces other court orders to perform other unmet nondiscretionary duties. The Court finds EPA's self-inflicted inconvenience, by itself, does not satisfy the "especially heavy" burden necessary to warrant more than six months to promulgate a federal plan. *See Thomas,* 658 F. Supp. at 172.

3. Future State Plans

Plaintiffs finally ask this Court to "order EPA to respond to any future state plan submissions within two months." Pls.' Mot. at 21. Plaintiffs maintain that "[m]any states did not submit plans by the deadline because EPA affirmatively encouraged them not to," and thus "this Court should require EPA to quickly review and determine if [future plans are] approvable." *Id.* The EPA counters that this Court lacks jurisdiction to order EPA to take action based on future

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Northern District of California

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plans because the "EPA has not yet missed any deadline to take final action on such plans." Defs.' Mot. at 25.

The Court finds that it does not yet have jurisdiction to order EPA to act based on as-yet-unmissed deadlines. As EPA notes, the CAA citizen suit provision under which Plaintiffs brought suit only vests jurisdiction in district courts "*after* EPA has failed to undertake some mandatory action prior to a certain deadline." *Id.* (quoting *Sierra Club v. Browner*, 130 F. Supp. 2d 78, 93 (D.D.C. 2001) and citing 42 U.S.C. § 7604(a)). In response, Plaintiffs cite to no authority to the contrary, but nonetheless urge this Court to exercise "close oversight in this matter," given that "EPA has shown that it has no intention of implementing the Emission Guidelines absent a specific court order, that it will implement them only in the narrowest way required, and that it will only fulfill additional mandatory obligations if it is hailed into court again." Pls.' Reply at 15 (internal citations omitted). Whether or not that characterization is accurate, the Court finds that the proper remedy given the jurisdiction-vesting statute is limited to compelling EPA to perform mandatory duties it has already failed to perform.

IV. CONCLUSION

For the foregoing reasons, the Court hereby **GRANTS IN PART** and **DENIES IN PART** Plaintiffs' motion for summary judgment and enters judgment in favor of Plaintiffs and against Defendants. The terms of the judgment are as follows:

(1) The Court **DECLARES** that Defendants U.S. Environmental Protection Agency and Andrew R. Wheeler, in his official capacity as Acting Administrator of the U.S. Environmental Protection Agency, have failed to perform non-discretionary duties imposed by 40 C.F.R. § 60.27 to both (1) approve or disapprove existing state plans submitted to EPA addressing emission guidelines promulgated for municipal solid waste landfills within four months of receipt, and (2) promulgate regulations setting forth a federal plan addressing the emission guidelines promulgated for municipal solid waste landfills by November 30, 2017, both in violation of the Clean Air Act;

(2) The Court **ORDERS** Defendants to approve or disapprove of existing state plans, as required by 40 C.F.R. § 60.27(b), no later than September 6, 2019;

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(3) The Court **ORDERS** Defendants to promulgate regulations setting forth a federal plan, as required by 40 C.F.R. § 60.27(d), no later than November 6, 2019;

(4) The Court **ORDERS** Defendants to file status reports with the Court every ninety days—such that the first status report is due August 5, 2019—detailing EPA's progress in complying with this order.

The Clerk is directed to enter judgment in favor of Plaintiffs and close the case. The Court retains jurisdiction to make such orders as may be necessary or appropriate.

IT IS SO ORDERED.

Dated: 5/6/2019

HAYWOOD S. GILLIAM, JR.
United States District Judge

United States District Court
Northern District of California

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Message

From: Fernandez, Cristina [Fernandez.Cristina@epa.gov]
Sent: 5/8/2019 3:37:33 PM
To: Gardner, Allison [Gardner.Allison@epa.gov]; Spielberger, Susan [spielberger.susan@epa.gov]; Gordon, Michael [Gordon.Mike@epa.gov]
Subject: RE: Adverse decision on landfill emissions
Attachments: 1156000-1156981-https-ecf-cand-uscourts-gov-doc1-035117945431.pdf

Thanks, this goes to Mike Gordon.

Cristina Fernandez, Director
Air & Radiation Division (3AD00)
U. S. Environmental Protection Agency, Region 3
1650 Arch Street
Philadelphia, PA 19103-2023
Work: (215) 814-2178
Cell: (215) 375-0847

From: Gardner, Allison
Sent: Wednesday, May 08, 2019 11:33 AM
To: Fernandez, Cristina <Fernandez.Cristina@epa.gov>; Spielberger, Susan <spielberger.susan@epa.gov>
Subject: Adverse decision on landfill emissions

This impacts DE and WV. This didn't come from HQ, but rather via Neil from one of his law firm contacts.

Allison

Allison F. Gardner
Chief, Media Program Counseling Branch
U.S. Environmental Protection Agency, Region III
1650 Arch Street (3RC50)
Philadelphia, PA 19103-2029
(P) 215-814-2631
(F) 215-814-2603
gardner.allison@epa.gov

Message

From: Pino, Maria [Pino.Maria@epa.gov]
Sent: 10/31/2018 2:49:29 PM
To: Gordon, Michael [Gordon.Mike@epa.gov]; Maldonado, Zelma [Maldonado.Zelma@epa.gov]
Subject: RE: Delaware 111(d) MSW submittal

Thanks, Mike!

Maria A. Pino
Office of Air Program Planning
US EPA Region III
1650 Arch St.
Philadelphia, PA 19103
(215) 814-2181

From: Gordon, Michael
Sent: Wednesday, October 31, 2018 10:48 AM
To: Pino, Maria <pino.maria@epa.gov>; Maldonado, Zelma <Maldonado.Zelma@epa.gov>
Subject: RE: Delaware 111(d) MSW submittal

No, that date is correct. We are taking comment on what should happen to state plans that have already been submitted. Until then we are in a holding pattern with respect to MSWL plans.

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: Pino, Maria
Sent: Wednesday, October 31, 2018 10:46 AM
To: Gordon, Michael <Gordon.Mike@epa.gov>; Maldonado, Zelma <Maldonado.Zelma@epa.gov>
Subject: RE: Delaware 111(d) MSW submittal

Thanks, Mike. I have some questions.

DE has 10-12-17 as the submittal date. Is that just a typo? Should it be 10-12-18?

What do we plan to do with the submittal? We're giving the states extra time to submit, but since DE already submitted, are we holding it?

Maria A. Pino
Office of Air Program Planning
US EPA Region III
1650 Arch St.
Philadelphia, PA 19103
(215) 814-2181

From: Gordon, Michael
Sent: Wednesday, October 31, 2018 10:40 AM
To: Pino, Maria <pino.maria@epa.gov>; Maldonado, Zelma <Maldonado.Zelma@epa.gov>
Subject: RE: Delaware 111(d) MSW submittal

Hi Maria,

I am the contact for the DNREC MSWL plan.

EPA received the MSWL state plan submitted by DNREC in October of 2018. EPA previously said that we are not prioritizing acting on MSWL state plans. On October 23, the Acting Administrator signed a proposal to extend plan submission deadlines for the 2016 Emission Guidelines for existing Municipal Solid Waste (MSW) Landfills. The proposed amendments would align state plan timing requirements with those recently proposed in the Affordable Clean Energy (ACE) rule. The new timing requirements would extend state plan submission deadlines to August 29, 2019. EPA would review submitted state plans for completeness within 6 months from submission and review for approval within 12 months of the completeness review. In aligning with the ACE proposal, the new timing requirements would also extend the timing to 2 years for the EPA to promulgate a federal plan for states that fail to submit an approvable state plan. In addition, EPA is taking comment on whether previously submitted state plans should be resubmitted in order to provide consistency and clarity for compliance.

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: Pino, Maria
Sent: Wednesday, October 31, 2018 10:37 AM
To: Maldonado, Zelma <Maldonado.Zelma@epa.gov>
Cc: Gordon, Michael <Gordon.Mike@epa.gov>
Subject: Delaware 111(d) MSW submittal

Hi Zelma,

Planning folks are heading to New Castle to meet with DNREC tomorrow morning. One thing they wanted to discuss was their 110(d) plan for MSW, which they submitted last October. Do you have an update I can share with them? To whom should I refer their questions?

Thanks,

Maria A. Pino
Office of Air Program Planning
US EPA Region III
1650 Arch St.
Philadelphia, PA 19103
(215) 814-2181

From: Gray, Valerie A. (DNREC) <Valerie.Gray@state.de.us>
Sent: Tuesday, October 30, 2018 2:23 PM
To: Pino, Maria <pino.maria@epa.gov>; Fees, David F. (DNREC) <David.Fees@state.de.us>
Cc: Mark Prettyman <Mark.Prettyman@state.de.us>
Subject: RE: DNREC EPA meeting, 11/1

Maria/Dave –

Some ideas for our discussion on Thursday

Introductions/Welcome
- DAQ staff introductions

DE SIP Status
- Spreadsheet update
- 111(d) MSW submitted to EPA 10-12-17
- Transportation Conformity Budgets
  - 2008/2009 budget – adopted 5/1/2007
  - 2015 Ozone Standard

Status
- Ozone Implementation Rule
- CSPAR Closeout
- SSM
- NOx monitoring proposal

Valerie Gray

DNREC - Division of Air Quality
Planning Supervisor
100 W. Water St. Suite 6A
302.739.9419 - office
302.739.3106 - fax
valerie.gray@state.de.us

Blue Skies Delaware; Clean Air for Life

Please consider the environment before printing this e-mail

From: Pino, Maria <Pino.Maria@epa.gov>
Sent: Monday, October 29, 2018 10:19 AM
To: Fees, David F. (DNREC) <David.Fees@state.de.us>; Gray, Valerie A. (DNREC) <Valerie.Gray@state.de.us>
Subject: RE: DNREC EPA meeting, 11/1

Hi Dave,

I'm sorry this didn't work out as hoped. I know how busy you are. Thanks for letting me know.

See you on Thursday.

Maria A. Pino
Office of Air Program Planning
US EPA Region III
1650 Arch St.

Philadelphia, PA 19103
(215) 814-2181

From: Fees, David F. (DNREC) [mailto:David.Fees@state.de.us]
Sent: Monday, October 22, 2018 5:55 PM
To: Pino, Maria <Pino.Maria@epa.gov>; valerie.gray@state.de.us
Subject: RE: DNREC EPA meeting, 11/1

Hi Maria,

I looking forward to seeing you and the others from R3.

Due to the change in time from the afternoon to the morning for this face-to-face, I got myself double-booked. Both meetings are at the Grantham Lane, New Castle office. I look to be part of the introductions of the EPA/DAQ Planning meeting but then will have to participate in the other meeting. Whenever the EPA/DAQ meeting ends and we are set to head to lunch, I will join you. I'm sorry I have to split my time, but the topics of the meeting will be well covered by Valerie and the others from DAQ.

Dave

David F. Fees, P.E.
Acting Director
Division of Air Quality
Delaware DNREC
tel. (302) 739-9402
e-mail: david.fees@state.de.us

Blue Skies Delaware; Clean Air for Life

From: Pino, Maria <Pino.Maria@epa.gov>
Sent: Monday, October 22, 2018 3:37 PM
To: Fees, David F. (DNREC) <David.Fees@state.de.us>; Gray, Valerie A. (DNREC) <Valerie.Gray@state.de.us>
Subject: DNREC EPA meeting, 11/1

Hi Dave & Valerie,

We're set with 9 of us driving down to New Castle next Thursday. Do you have any agenda topics you would like to discuss?

Also, as part of our planning for the upcoming year, we're trying to get a handle on any upcoming SIP revisions you are planning to develop in the coming year. I think we have most of them captured in the SIP list. However, if there's anything else, please let me know.

Here's the list of travelers for 11/1 .

- Sara Calcinore
- Megan Goold
- Leslie Jones
- Maria Pino
- Marilyn Powers
- Brian Rehn
- Ellen Schmitt
- Joe Schulingkamp

- Erin Trouba

Maria A. Pino
Office of Air Program Planning
US EPA Region III
1650 Arch St.
Philadelphia, PA 19103
(215) 814-2181

Message

From: Gardner, Allison [Gardner.Allison@epa.gov]
Sent: 5/8/2019 3:33:51 PM
To: Gordon, Michael [Gordon.Mike@epa.gov]
Subject: FW: Adverse decision on landfill emissions
Attachments: 1156000-1156981-https-ecf-cand-uscourts-gov-doc1-035117945431.pdf

Mike,

Sorry – meant to include you on the original email.

Allison F. Gardner
Chief, Media Program Counseling Branch
U.S. Environmental Protection Agency, Region III
1650 Arch Street (3RC50)
Philadelphia, PA 19103-2029
(P) 215-814-2631
(F) 215-814-2603
gardner.allison@epa.gov

From: Gardner, Allison
Sent: Wednesday, May 08, 2019 11:33 AM
To: Fernandez, Cristina <Fernandez.Cristina@epa.gov>; Spielberger, Susan <spielberger.susan@epa.gov>
Subject: Adverse decision on landfill emissions

This impacts DE and WV. This didn't come from HQ, but rather via Neil from one of his law firm contacts.

Allison

Allison F. Gardner
Chief, Media Program Counseling Branch
U.S. Environmental Protection Agency, Region III
1650 Arch Street (3RC50)
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(P) 215-814-2631
(F) 215-814-2603
gardner.allison@epa.gov

Message

From: Becoat, gregory [becoat.gregory@epa.gov]
Sent: 10/30/2018 4:55:33 PM
To: Gordon, Michael [Gordon.Mike@epa.gov]
Subject: RE: update?

Solid thanks!

From: Gordon, Michael
Sent: Tuesday, October 30, 2018 10:02 AM
To: Becoat, gregory <becoat.gregory@epa.gov>
Subject: RE: update?

Hi Greg, Here are updates on the following items:

ACE Rule:
Public comment period ends on October 31, 2018. A public hearing was held in Chicago on October 1, 2018. EPA will respond to public comments in a final rule.

CISWI:
EPA received the CISWI plan submitted in August of 2018 and will act on it in a notice of proposed rulemaking.

MSW Landfills:
EPA received the MSWL state plan submitted by the WVDEP in September of 2019. EPA previously said that we are not prioritizing acting on MSWL state plans. On October 23, the Acting Administrator signed a proposal to extend plan submission deadlines for the 2016 Emission Guidelines for existing Municipal Solid Waste (MSW) Landfills. The proposed amendments would align state plan timing requirements with those recently proposed in the Affordable Clean Energy (ACE) rule. The new timing requirements would extend state plan submission deadlines to August 29, 2019. EPA would review submitted state plans for completeness within 6 months from submission and review for approval within 12 months of the completeness review. In aligning with the ACE proposal, the new timing requirements would also extend the timing to 2 years for the EPA to promulgate a federal plan for states that fail to submit an approvable state plan. In addition, EPA is taking comment on whether previously submitted state plans should be resubmitted in order to provide consistency and clarity for compliance.

Mike Gordon
Environmental Engineer
Office of Permits and State Programs
Air Protection Division
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1650 Arch Street
Philadelphia, PA 19103
(215)-814-2039
Gordon.Mike@epa.gov

From: Becoat, gregory
Sent: Tuesday, October 30, 2018 9:54 AM
To: Gordon, Michael <Gordon.Mike@epa.gov>
Subject: update?

111(d) Plans Update

- CISWI Plan (submitted 8/2018)

- MSW Landfill Plan (submitted 9/2018)

Hello,

Is this you as well?

Gregory Becoat
Office of Air Program Planning
U. S. Environmental Protection Agency, Region III
1650 Arch Street (3AP30)
Philadelphia, PA 19103-2023
Work: (215) 814-2036
Fax: (215) 814-2124

Message

From: Jennings, Laura M [Laura.M.Jennings@wv.gov]
Sent: 6/28/2018 6:33:18 PM
To: Gordon, Michael [Gordon.Mike@epa.gov]; Richard.A.Boehm_wv.gov [Richard.A.Boehm@wv.gov]
Subject: Please review WV DRAFT MSWL State Plan
Attachments: MSWL_StatePlan_DRAFT_MG_062818.docx; 45CSR23_Final.pdf

Mike,

Enclosed is the draft version of the WV MSW landfill state plan developed from 45CSR23 that became effective June 1, 2018. Rich and I would appreciated it if you would review the draft plan and provide any comments that you may have. I have enclosed 45CSR23 for your reference.

If possible, please provide us any feedback you have prior to Friday, July 13 so that we may make the corrections and go out to public notice.

Thank you in advance for your time,

Laura and Rich

Laura M. Jennings
Technical Analyst, Planning
WV Dept. of Environmental Protection
Division of Air Quality
(304)926-0499 x 1217
Laura.M.Jennings@wv.gov

TITLE 45
LEGISLATIVE RULE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
AIR QUALITY

SERIES 23
CONTROL OF AIR POLLUTION FROM MUNICIPAL SOLID WASTE LANDFILLS

§45-23-1. General.

1.1. Scope. -- This rule establishes and adopts standards of performance pursuant to § 111(b) of the federal Clean Air Act (CAA) and establishes emission guidelines and compliance times pursuant to § 111(d) of the federal CAA for the control of certain designated pollutants from the following municipal solid waste landfill categories:

1.1.a. Municipal solid waste landfills subject to the emission guidelines and compliance times promulgated by the U.S. EPA under 40 CFR Part 60, Subpart Cc and set forth in section 6 of this rule;

1.1.b. Municipal solid waste landfills subject to the standards of performance promulgated by the U.S. EPA under 40 CFR Part 60, Subpart WWW and set forth in section 4 of this rule;

1.1.c. Municipal solid waste landfills subject to the emission guidelines and compliance times promulgated by the U.S. EPA under 40 CFR Part 60, Subpart Cf and set forth is section 7 of this rule; and

1.1.d. Municipal solid waste landfills that commenced construction, reconstruction or modification after July 17, 2014 are subject to the standards of performance promulgated by the U.S. EPA under 40 CFR Part 60, Subpart XXX and set forth in section 5 of this rule;

1.2. Authority. -- W. Va. Code § 22-5-4.

1.3. Filing Date. -- March 22, 2018.

1.4. Effective Date. -- June 1, 2018.

1.5. This rule codifies general procedures and criteria to implement a program of specific standards of performance, emission guidelines, and compliance times for municipal solid waste landfills.

1.6. Neither compliance with the provisions of this rule nor the absence of specific language to cover particular situations constitutes approval or implies consent or condonation of any emission that is released in any locality in such a manner or amount as to cause or contribute to statutory air pollution. Neither does it exempt nor excuse any person from complying with other applicable laws, ordinances, regulations or orders of governmental entities having jurisdiction over municipal solid waste landfills.

1.7. Incorporation by Reference. -- Federal Counterpart Regulation. The Secretary has determined that a federal counterpart rule exists. In accordance with the Secretary's recommendation, and with limited exception, this rule incorporates by reference, 40 CFR Part 60 Subpart XXX effective June 1, 2017.

§45-23-2. Definitions.

2.1. "Administrator" means the Administrator of the United States Environmental Protection Agency or his or her designated representative.

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2.2. "CFR" means the Code of Federal Regulations published by the Office of the Federal Register, National Archives and Records Service, General Services Administration.

2.3. "Clean Air Act" or "CAA" means the federal Clean Air Act, as amended, 42 U.S.C. § 7401, et seq.

2.4. "Closed landfill" means a landfill into which solid waste is no longer being placed and into which no additional solid wastes will be placed without first filing a notification of modification as prescribed in 40 CFR § 60.7(a)(4) (incorporated by reference into State law at 45CSR16). Once the owner or operator has filed a notification of modification, and places additional solid waste in the landfill, the landfill is no longer closed.

2.5. "Closed landfill subcategory" means a closed landfill that has submitted a closure report on or before September 27, 2017, as specified in subdivision 7.9.f below

2.6. "Existing" means each municipal solid waste landfill that commenced construction, reconstruction or modification on or before July 17, 2014.

2.7. "Modification" means an increase in the permitted volume design capacity of the landfill 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.

2.8. "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. A MSWL may also receive other types of Resource Conservation and Recovery Act (RCRA) Subtitle D wastes (40 CFR § 257.2), such as commercial solid waste, nonhazardous sludge, conditionally exempt small quantity generator waste, and industrial solid waste. Portions of a MSWL may be separated by access roads. A MSWL may be publicly or privately owned. A MSWL may be a new MSWL, an existing MSWL, or a lateral expansion.

2.9. "Municipal solid waste landfill emissions" or "MSWL emissions" means gas generated by the decomposition of organic waste deposited in a MSWL or derived from the evolution of organic compounds in the waste.

2.10. "NMOC", (Non Methane Organic Compounds) means nonmethane organic compounds, as measured according to the provisions of subsection 7.6. below.

2.11. "Person" means any and all persons, natural or artificial, including the state of West Virginia or any other state, the United States of America, any municipal, statutory, public or private corporation organized or existing under the laws of this or any other state or country, and any firm, partnership or association of whatever nature.

2.12. "ppm" means parts per million.

2.13. "Secretary" means the Secretary of the Department of Environmental Protection or such other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8.

2.14. "Treatment System" means a system that filters, de-waters, and compresses landfill gas for sale or beneficial use.

2.15. Other words and phrases used in this rule, unless otherwise indicated, shall have the meaning ascribed to them in 40 CFR Part 60 Subparts A, B, Cc, Cf, WWW and XXX as applicable. Words and

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phrases not defined therein shall have the meaning given to them in the federal Clean Air Act.

§45-23-3. Adoption of standards.

3.1. The Secretary hereby adopts and incorporates by reference the standards of performance and definitions set forth in 40 CFR Part 60, Subparts B and XXX, including any applicable reference methods, performance specifications, and other test methods, which are appended to these standards and contained in this rule.

§45-23-4. Requirements for municipal solid waste landfills constructed, modified, or reconstructed on or after May 30, 1991 and before July 17, 2014.

4.1. The owner or operator of a MSWL under subsection 4.2 below shall comply with all applicable standards of performance, requirements, and provisions of 40 CFR Part 60, Subpart Cf set forth in section 7 of this rule, including any reference methods, performance specifications, and other test methods. No person shall construct or operate a MSWL that results in a violation of this rule.

4.2. Applicability. The designated facility to which section 7 of this rule applies is each MSWL that:

4.2.a. Commenced construction on or after May 30, 1991 and before July 17, 2014; or

4.2.b. Commenced reconstruction or modification on or after May 30, 1991 and before July 17, 2014; and

4.2.c. Was previously subject to 40 CFR Part 60, Subpart WWW.

4.3. Each MSWL that was defined as "new" in the previous revision of 45CSR23 is defined as an "existing" MSWL.

§45-23-5. Requirements for new municipal solid waste landfills.

5.1. The owner or operator of a new MSWL under subsection 5.2 below shall comply with all applicable standards of performance, requirements, and provisions of 40 CFR Part 60 Subpart XXX, including any reference methods, performance specifications, and other test methods associated with Subpart XXX. No person shall construct or operate a new MSWL that results in a violation of 40 CFR Part 60, Subpart XXX or this rule.

5.2. Applicability. -- The owner or operator of a MSWL that meets the following criteria shall be subject to the requirements for a new MWSL set forth in section 3 above. A new MSWL is a MSWL that either:

5.2.a. Commenced construction after July 17, 2014; or

5.2.b. Commenced reconstruction or modification after July 17, 2014.

5.3. Physical or operational changes made to a MSWL solely to comply with 40 CFR Part 60, Subparts Cc, Cf, or WWW are not considered construction, reconstruction or modification for the purposes of applicability.

5.4. Activities required by or conducted pursuant to a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Resource Conservation and Recovery Act (RCRA), or the West Virginia Voluntary Remediation and Redevelopment Act (VRRA) are not considered construction or modification for the purposes of applicability.

§45-23-6. Requirements for existing municipal solid waste landfills constructed, reconstructed, or modified before May 30, 1991.

6.1. The owner or operator of a MSWL under subsection 6.2 below shall comply with all applicable standards of performance, requirements and provisions of 40 CFR Part 60, Subpart Cf, set forth in section 7 of this rule, including any reference methods, performance specifications, and other test methods. No person shall construct or operate a MSWL that results in a violation of this rule.

6.2. Applicability. The designated facility to which section 7 of this rule applies is each MSWL that:

6.2.a. Commenced construction before May 30, 1991; or

6.2.b. Commenced reconstruction or modification before May 30, 1991; or

6.2.c. Each MSWL that was subject to 40 CFR Part 60, Subpart Cc and the requirements of this rule.

§45-23-7. Requirements for existing municipal solid waste landfills.

7.1. Requirements for existing MSWLs. -- The owner or operator of an existing MSWL under subsection 7.2 below shall comply with the applicable compliance times, requirements, and provisions of 40 CFR Part 60 Subpart Cf, set forth in section 7, including any reference methods, performance specifications, and other test methods. No person shall construct, reconstruct, modify or operate, or cause to be reconstructed, modified, or operated, an existing MSWL that results in a violation of this rule.

7.2. Applicability.

7.2.a. Each MSWL that commenced construction, reconstruction or modification before July 17, 2014 is subject to the requirements for an existing MSWL under section 7.

7.2.b. Physical or operational changes made to an existing MSWL solely to comply with the requirements of section 7 are not considered a modification or reconstruction.

7.2.c. Title V operating permits.

7.2.c.1. If the MSWL design capacity is less than 2.5 million megagrams or 2.5 million cubic meters, the owner or operator is not required to obtain an operating permit under 45CSR30 unless the MSWL is otherwise subject to 45CSR30.

7.2.c.2. If the MSWL design capacity is greater than 2.5 million megagrams or 2.5 million cubic meters, the owner or operator shall submit a timely and complete permit application in accordance with 45CS30 within one year of the effective date of this rule.

7.2.c.3. The owner or operator is not required to maintain an operating permit under 45CSR30 for the MSWL after it is closed, if the landfill is not otherwise subject to the requirements of 45CSR30 and if either of the following conditions are met:

7.2.c.3.A. The landfill was never required to install and operate a gas collection and control system under subdivision 7.4 below; or

7.2.c.3.B. The landfill meets the conditions for control system removal specified in subdivision 7.4.f. below.

7.2.d. The owner or operator is not subject to the following reports when a MSWL is in the

closed landfill subcategory, if the owner or operator submitted the reports under the provisions of 40 CFR Part 60, Subpart WWW, and 45CSR23 on or before July 17, 2014:

7.2.d.1. Initial design capacity report per subdivision 7.9.a.

7.2.d.2. Initial or subsequent NMOC emission rate report per subdivision 7.9.c, provided that the most recent NMOC emission rate report indicated the NMOC emissions were below 50 Mg/yr.

7.2.d.3. Collection and control system design plan per subdivision 7.9.d.

7.2.d.4. Closure report per subdivision 7.9.f.

7.2.d.5. Equipment removal report per subdivision 7.9.g.

7.2.d.6. Initial annual report per subdivision 7.9.h.

7.2.d.7. Initial performance test report per subdivision 7.9.i.

7.2.e. The provisions of section 7 apply at all times, including periods of startup, shutdown or malfunction. During periods of startup, shutdown or malfunction, the owner or operator shall comply with the work practice specified in 7.5.b.5 in lieu of the compliance provisions in 7.7.

7.3. Compliance times. -- The owner or operator shall install and start up MSWL air emission collection and control equipment capable of meeting the requirements provided in subsection 7.4 no later than:

7.3.a. Thirty months after an NMOC emission rate report shows NMOC emissions are equal to or exceed 34 megagrams per year; or

7.3.b. Thirty months after an NMOC emission rate report shows NMOC emissions are equal to or exceed 50 megagrams per year for the closed landfill subcategory; or

7.3.c. Thirty months after the most recent NMOC emission rate report shows NMOC emissions are equal to or exceed 34 megagrams per year, if Tier 4 surface emissions monitoring shows a surface emission concentration of 500 ppm methane or greater.

7.3.d. Thirty months after the most recent NMOC emission rate report shows NMOC emissions are equal to or exceed 50 megagrams per year for the closed landfill subcategory, if Tier 4 surface emissions monitoring shows a surface emission concentration of 500 ppm methane or greater.

7.4. Municipal solid waste landfill emissions requirements.

7.4.a. Each owner or operator of a MSWL with 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 MSWL emissions at each MSWL that meet the following conditions:

7.4.a.1. The landfill accepted waste at any time after November 8, 1987, or the MSWL has additional design capacity available for future waste deposition;

7.4.a.2. The landfill commenced construction, reconstruction or modification before July 17, 2014;

7.4.a.3. The landfill has an NMOC emission rate greater than or equal to 34 megagrams per year, or Tier 4 surface emissions monitoring shows a surface emission concentration 500 ppm methane or

greater; or

7.4.a.4. The landfill is in the closed landfill subcategory and has an NMOC emission rate greater than or equal to 50 megagrams per year, or Tier 4 surface emissions monitoring shows a surface emission concentration of 500 ppm methane or greater.

7.4.b. Collection system. -- For each MSWL that meets the criteria under subdivision 7.4.a, the gas collection and control system installation shall meet the requirements under paragraphs 7.4.b.1 through 7.4.b.3 and subdivision 7.4.c

7.4.b.1. The owner or operator shall install and start up a collection and control system that captures the gas generated within the landfill within 30 months after:

7.4.b.1.A. The first annual report in which the NMOC emission rate is equal to or exceeds 34 megagrams per year, unless Tier 2 or Tier 3 sampling demonstrates that the NMOC emission rate is less than 34 megagrams per year, per paragraph 7.9.d.4; or

7.4.b.1.B. The first annual NMOC emission rate report for a landfill in the closed landfill subcategory that the NMOC emission rate equals or exceeds 50 megagrams per year, unless Tier 2 or Tier 3 sampling demonstrates that the NMOC emission rate is less than 50 megagrams per year, per paragraph 7.9.d.4; or

7.4.b.1.C. The most recent NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year based on Tier 2, if the Tier 4 surface emissions monitoring shows a surface methane emission concentration of 500 ppm methane or greater per part 7.9.d.4.C.

7.4.b.2. An active collection system shall:

7.4.b.2.A. 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 system equipment;

7.4.b.2.B. 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 five years or more if active or two years or more if closed or at final grade;

7.4.b.2.C. Collect gas at a sufficient extraction rate; and

7.4.b.2.D. Be designed to minimize off-site migration of subsurface gas.

7.4.b.3. A passive collection system shall:

7.4.b.3.A. Comply with subparagraphs 7.4.b.2.A, 7.4.b.2.B, and 7.4.b.2.D.; and

7.4.b.3.B. Be installed with liners installed on the bottom and all sides in all areas in which gas will be collected, per 40 CFR § 258.40.

7.4.c. Control system. -- Control devices shall meet the following requirements, except as provided in 60 CFR § 60.24.

7.4.c.1. The owner or operator shall design and operate a non-enclosed flare according to the parameters established in 40 CFR § 60.18 and 45CSR16, except as noted in subdivision 7.8.d; or

7.4.c.2. The owner or operator shall design and operate each control system to reduce NMOC by 98 weight percent, or when an enclosed combustion device is used for control, either reduce

NMOC by 98 weight percent or reduce the outlet NMOC concentration to less than 20 ppm by volume, dry basis as hexane at three percent (3%) oxygen or less. The reduction efficiency or concentration in ppm by volume shall be established by an initial performance test using the test methods set out in subdivision 7.6.d and shall be completed no later than 180 days after the initial startup of the approved control system. The performance test is not required for boilers and process heaters with design heat input capacities equal to or greater than 44 megawatts that burn landfill gas for compliance with section 7.

7.4.c.2.A. If a boiler or process heater is used as the control device, the landfill gas stream shall be introduced into the flame zone.

7.4.c.2.B. 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 subsection 7.8.

7.4.c.2.C. For the closed landfill subcategory, the initial or most recent performance test to comply with section 4 or section 6 conducted on or before July 17, 2014 demonstrates compliance.

7.4.c.3. The owner or operator shall route the collected gas to a treatment system that processes the collected gas for subsequent sale or beneficial use, such as fuel for combustion, production of vehicle fuel, production of high-Btu gas for pipeline injection or use as a raw material in a chemical manufacturing process. Venting of treated landfill gas to the ambient air is not allowed. If the treated landfill gas cannot be routed for subsequent sale or beneficial use, then the treated landfill gas shall be controlled according to either paragraphs 7.4.c.1 or 7.4.c.2.

7.4.c.4. All emissions from any atmospheric vent from the gas treatment system are subject to the requirements of subdivisions 7.4.b or 7.4.c. Atmospheric vents located on the condensate storage tank are not part of the treatment system and are exempt from the requirements of subdivisions 7.4.b and 7.4.c.

7.4.d. Design capacity. -- Each owner or operator of an MSWL 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 Secretary per subdivision 7.9.a. The owner or operator may calculate design capacity in either megagrams or cubic meters for comparison with the exemption values. The owner or operator shall document any density conversions and submit them with the report. Submittal of the initial design capacity report satisfies the requirements of section 7, except as provided in paragraphs 7.4.d.1 and 7.4.d.2.

7.4.d.1. The owner or operator shall submit an amended design capacity report if required by subdivision 7.9.b.

7.4.d.1.A. If the design capacity increase is the result of a modification that was commenced after July 17, 2014, then the landfill becomes a new MSWL subject to section 5.

7.4.d.1.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, then the landfill remains an existing MSWL subject to section 7.

7.4.d.2. The owner or operator shall comply with subdivision 7.4.e if there is an increase in the maximum design capacity of any MSWL with an initial design capacity less than 2.5 million megagrams or 2.5 million cubic meters that has a revised maximum design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters.

7.4.e. Emissions. -- Each owner or operator of a MSWL with 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 according to subdivisions 7.4.b and 7.4.c or calculate an initial NMOC emission rate for the landfill using the procedures specified in subdivision 7.6.a. The NMOC emission rate shall be recalculated annually except as provided in paragraph 7.9.c.3.

7.4.e.1. If the calculated NMOC emission rate is less than 34 megagrams per year, the owner or operator shall:

7.4.e.1.A. Submit an annual NMOC emission rate report per 7.9.c except as provided in 7.9.c.3; and

7.4.e.1.B. Recalculate the NMOC emission rate annually per subdivision 7.6.a until either the calculated NMOC emission rate is equal to or greater than 34 megagrams per year or the landfill is closed.

7.4.e.1.B.1. If the initial or annual calculated NMOC emission rate is equal to or greater than 34 megagrams per year, the owner or operator shall either:

7.4.e.1.B.1.(a) Comply with subdivisions 7.4.b and 7.4.c;

7.4.e.1.B.1.(b) Calculate NMOC emissions using the next higher tier in section 7.6; or

7.4.e.1.B.1.(c) Conduct a surface emission monitoring demonstration according to paragraph 7.6.a.11.

7.4.e.1.B.2. The owner or operator shall submit a closure report per subdivision 7.9.f if the landfill is permanently closed, except for the exemption allowed under paragraph 7.2.d.4.

7.4.e.1.B.3. If the most recently calculated NMOC emission rate is equal to or greater than 50 megagrams per year for the closed landfill subcategory, the owner or operator shall either:

7.4.e.1.B.3.(a) Submit a gas collection and control system design plan per 7.9.d, except for the exemptions allowed under paragraph 7.2.d.3, and install a collection and control system per subdivisions 7.4.b and 7.4.c;

7.4.e.1.B.3.(b) Calculate NMOC emissions using the next higher tier in section 7.6; or

7.4.e.1.B.3.(c) Conduct a surface emission monitoring demonstration according to the requirements of paragraph 7.6.a.11.

7.4.e.2. If the calculated NMOC emission rate is equal to or greater than 34 megagrams per year using Tier 1, 2 or 3 procedures, the owner or operator shall either:

7.4.e.2.A. Submit a collection and control system design plan prepared by a professional engineer to the Secretary within one year as required by subdivision 7.9.d, except for the exemption allowed under 7.2.d.3;

7.4.e.2.B. Calculate the NMOC emissions using a higher tier in section 7.6; or

7.4.e.2.C. Conduct a surface emission monitoring demonstration according to the requirements under paragraph 7.6.a.11.

7.4.e.3. For the closed landfill subcategory, 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 shall either:

7.4.e.3.A. Submit a collection and control system design plan as required by subdivision 7.9.d, except for the exemption allowed under 7.2.d.3;

7.4.e.3.B. Calculate NMOC emissions using a higher tier in section 7.6; or

7.4.e.3.C. Conduct a surface emission monitoring demonstration according to the requirements under paragraph 7.6.a.11.

7.4.f. Removal Criteria. -- The owner or operator may cap, remove or decommission the collection and control system if the following criteria are met:

7.4.f.1. The landfill is a closed landfill and a closure report was submitted to the Secretary per subdivision 7.9.f.;

7.4.f.2. The collection and control system has been in operation a minimum of 15 years, or the owner or operator can demonstrate that the gas collection and control system is unable to operate for 15 years due to declining gas flow;

7.4.f.3. The NMOC emission rate at the landfill is less than 34 megagrams per year on three successive test dates, calculated per subdivision 7.6.b. The test dates shall be a minimum of 90 days apart and a maximum of 180 days apart; and

7.4.f.4. The NMOC emission rate for the closed landfill subcategory is less than 50 megagrams per year on three successive test dates, as calculated per subdivision 7.6.b. The test dates shall be a minimum of 90 days apart and a maximum of 180 days apart.

7.5. Collection and Control Systems Requirements.

7.5.a. Specifications for Active Collection Systems.

7.5.a.1. To comply with subdivision 7.4.b, the owner or operator 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 the Secretary has approved alternative procedures.

7.5.a.1.A. A professional engineer shall certify interior collection devices to achieve comprehensive control of surface gas emissions. The following factors shall be addressed in the design:

7.5.a.1.A.1. Depths of refuse;

7.5.a.1.A.2. Refuse gas generation rates and flow characteristics;

7.5.a.1.A.3. Cover properties;

7.5.a.1.A.4. Gas system expandability;

7.5.a.1.A.5. Leachate and condensate management;

7.5.a.1.A.6. Accessibility;

7.5.a.1.A.7. Compatibility with filling operations;

7.5.a.1.A.8. Integration with closure end use;

7.5.a.1.A.9. Air intrusion control;

7.5.a.1.A.10. Corrosion resistance;

7.5.a.1.A.11. Fill settlement;

7.5.a.1.A.12. Resistance to the refuse decomposition heat; and

7.5.a.1.A.13. Ability to isolate individual components or sections for repair or troubleshooting without shutting down the entire collection system.

7.5.a.1.B. The sufficient density of gas collection devices determined in paragraph 7.5.a.1 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.

7.5.a.1.C. The placement of gas collection devices shall control all gas producing areas, except as provided by paragraphs 7.5.a.1.C.1 and 7.5.a.1.C.2.

7.5.a.1.C.1. Any segregated area of asbestos or nondegradable material may be excluded from collection if documented per subdivision 7.10.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 Secretary upon request.

7.5.a.1.C.2. Any nonproductive area of the landfill may be excluded from control, provided that the owner or operator demonstrates that the total of all excluded areas contributes less than one percent (1%) of the total amount of NMOC emissions from the landfill. The owner or operator shall document the amount, location, and age of the material and provide that information to the Secretary upon the Secretary's request. The owner or operator shall make a separate NMOC emissions estimate for each section proposed for exclusion and shall compare the sum of all such sections to the NMOC emissions estimate for the entire landfill.

7.5.a.1.C.2.(a). The NMOC emissions from each section proposed for exclusion shall be calculated using Equation 1:

$$Q_i = 2kL_oM_i(e^{-kti})(C_{NMOC})(3.6 \times 10^{-9}) \qquad \text{(Eq. 1)}$$

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 section, years.
C_{NMOC} = Concentration of NMOC, ppm by volume.
$3.6x10^{-9}$ = Conversion factor.

7.5.a.1.C.2.(b). If the owner or operator proposes to exclude or cease gas collection and control from nonproductive, physically separated (e.g., separately lined), closed areas that already have gas collection systems, the owner or operator shall calculate NMOC emissions from each physically separated closed area using either Equation 4 in section 7.6 or Equation 1.

7.5.a.1.C.3. The owner or operator shall use the values for k and C_{NMOC} determined by field testing if the owner or operator performed field testing to determine 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). If the owner or operator did not perform field testing, the owner or operator shall use the default values for k, L_o, and C_{NMOC} provided in section 7.6 or the alternative values from section 7.6. The owner or operator may subtract the mass of nondegradable solid waste contained within the given section from the total mass of the section when estimating emissions, provided that the owner or operator documents the nature, location, age, and amount of the nondegradable material per subparagraph 7.5.a.1.C.1.

7.5.a.2. To comply with subdivision 7.4.b, the owner or operator shall construct the gas collection devices using the following equipment or procedures:

7.5.a.2.A. The owner or operator shall construct the landfill gas extraction components of polyvinyl chloride (PVC), high density polyethylene (HDPE) pipe, fiberglass, stainless steel or other nonporous corrosion resistant material of suitable dimensions to:

7.5.a.2.A.1. Convey projected amounts of gases;

7.5.a.2.A.2. Withstand installation, static, and settlement forces; and

7.5.a.2.A.3. Withstand planned overburden or traffic loads.

7.5.a.2.A.4. The collection system shall extend as necessary to comply with emission and migration standards.

7.5.a.2.A.5. The 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. The perforations shall be situated to prevent excessive air infiltration.

7.5.a.2.B. Vertical wells shall:

7.5.a.2.B.1 Be placed to avoid endangering underlying liners; and

7.5.a.2.B.2. Shall address the occurrence of water within the landfill.

7.5.a.2.C. Holes and trenches constructed for piped wells and horizontal collectors shall be a sufficient cross-section to allow for their proper construction and completion including, for example, centering of pipes and placement of gravel backfill.

7.5.a.2.D. Collection devices shall be designed to prohibit indirect short circuiting of air into the cover or refuse into the collection system or gas into the air.

7.5.a.2.E. The dimension of any gravel used around pipe perforations shall be sized not to penetrate or block the perforations.

7.5.a.2.F. Collection devices may be connected to the collection header pipes below or above the landfill surface.

7.5.a.2.F.1. The connector assembly surface emission monitor shall include a positive closing throttle valve, any necessary seals and couplings, access couplings, and at least one sampling port.

7.5.a.2.F.2. The collection devices shall be constructed of PVC, HDPE, fiberglass, stainless steel or other nonporous material of suitable thickness to prevent discharge.

7.5.a.3. To comply with subdivision 7.4.c, the owner or operator shall convey the landfill gas

through header piping to a control system in compliance with subdivision 7.4.c. 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 and shall meet the following requirements:

7.5.a.3.A. For existing collection systems, the flow data shall be used to project the maximum flow rate. If flow data does not exist, follow the requirements in 7.5.a.3.B.

7.5.a.3.B. For new collection systems, the maximum flow rate shall comply with paragraph 7.7.a.1.

7.5.b. Operational standards for collection and control systems. -- Each owner or operator of an MSWL with a gas collection and control system used to comply with subdivisions 7.4.b and 7.4.c shall:

7.5.b.1. Operate the collection system such that gas is collected from each area, cell or group of cells in the MSWL that solid waste has been in place for:

7.5.b.1.A. Five years or more if active; or

7.5.b.1.B. Two years or more if closed or at final grade.

7.5.b.2. Operate the collection system with negative pressure at each wellhead except under the following conditions:

7.5.b.2.A. A fire or increased well temperature. The owner or operator shall record instances when positive pressure occurs in efforts to avoid a fire. The owner or operator shall submit these records with the annual reports per paragraph 7.9.h.

7.5.b.2.B. Use of a geomembrane or synthetic cover. The owner or operator shall develop acceptable pressure limits in the design plan to meet the requirements of 7.9.d.

7.5.b.2.C. A decommissioned well. A well may experience a static positive pressure after shut down to accommodate for declining flows. The owner or operator shall obtain approval from the Secretary for all design changes per subdivision 7.9.d.

7.5.b.3. The owner or operator shall operate each interior wellhead in the collection system with a landfill gas temperature less than 55 degrees Centigrade (131 degrees Fahrenheit). The owner or operator may establish a higher value operating temperature at a particular well if the owner or operator satisfies all criteria below:

7.5.b.3.a. The owner or operator shall submit a higher operating value demonstration to the Secretary; and

7.5.b.3.b. The supporting data shall demonstrate that the elevated parameter neither causes fires nor significantly inhibits anaerobic decomposition by killing methanogens; and

7.5.b.3.c. The Secretary approved the higher value operating temperature.

7.5.b.4. The owner or operator shall operate the collection system to maintain the methane concentration below 500 ppm above the background at the landfill surface. To determine if this level is exceeded, the owner or operator shall:

7.5.b.4.A. Conduct surface testing using an organic vapor analyzer, flame ionization detector or other portable monitor meeting the specifications in subdivision 7.7.d.;

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7.5.b.4.B. Conduct surface testing around the perimeter of the collection area and along a pattern that traverses the landfill at no more than 30-meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover and all cover penetrations;

7.5.b.4.C. Monitor any openings that are within an area of the landfill where waste has been placed and a gas collection system is required; and

7.5.b.4.E. Develop a surface monitoring design plan that includes a topographical map with the monitoring route and the rationale for any site-specific deviations from the 30-meter intervals.

7.5.b.4.F. To determine if the level established in 7.5.b.4. is exceeded, the owner or operator may:

7.5.b.4.F.1 Establish an alternative traversing pattern that ensures equivalent coverage.; and

7.5.b.4.F.2. Exclude from the surface testing areas with steep slopes or other dangerous areas.

7.5.b.5. Vent all collected gases to a control system designed and operated in compliance with subdivision 7.4.c. In the event the collection or control system stops operating, the owner or operator shall:

7.5.b.5.A. Shut down the gas mover system; and

7.5.b.5.B. Close all valves in the collection and control system contributing to venting of the gas to the atmosphere within one hour of the collection or control system not operating.

7.5.b.6. Operate the control system at all times when the collected gas is routed to the system.

7.5.b.7. Take corrective action as specified in paragraphs 7.7.a.3 and 7.7.a.4 or subdivision 7.7.c if monitoring demonstrates that the operational requirements in paragraphs 7.5.b.2, 7.5.b.3, or 7.5.b.4 are not satisfied. If the owner or operator takes corrective actions per subsection 7.7, the Secretary shall not consider the monitored exceedance a violation of the operational requirements in this section.

7.6. Testing requirements

7.6.a. NMOC emission rate:

7.6.a.1. The owner or operator shall calculate the NMOC emission rate using either Equation 2 or Equation 3 below:

7.6.a.2. The owner or operator may use both Equation 2 and Equation 3 if:

7.6.a.2.A. The owner or operator knows the actual year-to-year solid waste acceptance rate for part of the life of the landfill; or

7.6.a.2.B. The owner or operator does not know the actual year-to-year solid waste acceptance rate for part of the life of the landfill.

7.6.a.3. The owner or operator shall use the following values in both Equation 2 and Equation 3:

7.6.a.3.A. k is 0.05 per year,

7.6.a.3.B. L_o is 170 cubic meters per megagram and

7.6.a.3.C. C_{NMOC}. is 4,000 ppm by volume as hexane

7.6.a.3.D. If the landfill is located in geographical areas with a 30-year annual average precipitation of less than 25 inches, as measured at the nearest representative official meteorological site, the k value is 0.02 per year.

7.6.a.4. The owner or operator shall use Equation 2 if it knows the actual year-to-year solid waste acceptance rate. When calculating the value for M_i, the owner or operator may subtract the mass of nondegradable solid waste from the total mass of solid waste in a particular section of the landfill, if the owner or operator maintains documentation of the nature and amount of such wastes.

$$M_{NMOC} = \sum_{i=1}^{n} 2kL_oM_i\left(e^{-kt_i}\right)(C_{NMOC})(3.6\ x\ 10^{-9}) \qquad Equation\ 2$$

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, ppm by volume as hexane.
3.6×10^{-9} = Conversion factor.

7.6.a.5. The owner or operator shall use Equation 3 if it knows the actual year-to-year solid waste acceptance rate. When calculating the value of R, the owner or operator may subtract the mass of nondegradable solid waste from the total mass of solid waste in a particular section of the landfill, if the owner or operator maintains documentation of the nature and amount of such wastes.

$$M_{NMOC} = 2L_oR\left(e^{-kc} - e^{-kt}\right)C_{NMOC}(3.6\ x\ 10^{-9}) \qquad Equation\ 3$$

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, ppm by volume as hexane.
c = Time since closure, years; for an active landfill c = 0 and $e^{-kc} = 1$.
3.6×10^{-9} = Conversion factor.

7.6.a.6. Tier 1 procedures. -- The owner or operator shall compare the calculated NMOC mass emission rate to the standard of 34 megagrams per year:

7.6.a.6.A. If the owner or operator calculates the NMOC emission rate by the methods specified in paragraphs 7.6.a.1 through 7.6.a.3 and it is less than 34 megagrams per year, then the owner or operator shall submit an NMOC emission rate report according to subdivision 7.9.c. below and shall recalculate the NMOC mass emission rate annually as required by subdivision 7.4.e.

7.6.a.6.B. If the owner or operator calculates the NMOC emission rate by the methods specified in paragraphs 7.6.a.1 through 7.6.a.3 and it is equal to or greater than 34 megagrams per year, then the owner or operator shall either:

7.6.a.6.B.1. Submit a gas collection and control system design plan within one year as specified in subdivision 7.9.d and install and operate a gas collection and control system within 30 months according to subdivisions 7.4.b and 7.4.c; or

7.6.a.6.B.2. Determine a site-specific NMOC concentration and recalculate the NMOC emission rate using the Tier 2 procedures in paragraph 7.6.a.7; or

7.6.a.6.B.3. Determine a site-specific methane generation rate constant and recalculate the NMOC emission rate using the Tier 3 procedures in paragraph 7.6.a.9.

7.6.a.7. Tier 2 -- NMOC Calculation. The owner or operator shall determine the site specific NMOC concentration using the following sampling procedure:

7.6.a.7.A. Install a minimum of two sample probes per hectare, evenly distributed over the landfill surface that has retained waste for at least two years;

7.6.a.7.B. If the landfill is larger than 25 hectares in area, the owner or operator is required to take only 50 samples, with the probes evenly distributed across the sample area;

7.6.a.7.C. The owner or operator should locate the sample probes so as to avoid known areas of nondegradable solid waste;

7.6.a.7.D. 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 40 CFR Part 60, Appendix A and 45CSR16;

7.6.a.7.E. The owner or operator may take composite samples from different probes into a single cylinder: provided, that the owner or operator takes equal sample volumes from each probe and:

7.6.a.7.E.1. The owner or operator shall record the sampling rate, collection times, beginning and ending cylinder vacuums or alternative volume measurements for each composite to verify that composite volumes are equal;

7.6.a.7.E.2. Composite sample volumes should not be less than one liter unless the owner or operator can provide evidence to substantiate the accuracy of smaller volumes; and

7.6.a.7.E.3. The owner or operator shall terminate compositing before the cylinder approaches ambient pressure when the measurement accuracy diminishes.

7.6.a.7.F. If the owner or operator takes more than the required number of samples, the owner or operator shall use all samples in the analysis.

7.6.a.7.G. The owner or operator shall divide the NMOC concentration from Method 25 or 25C by six to convert from C_{NMOC} as carbon to C_{NMOC} as hexane.

7.6.a.7.H. If the landfill has an active or passive gas removal system in place, the owner or operator may collect Method 25 or 25C samples from these systems instead of surface probes: provided, that the owner or operator can demonstrate that the removal system sampling is as representative as the two sampling probe per hectare requirement of subparagraph 7.6.a.7.A.

7.6.a.7.I. If the landfill has active collection systems, the owner or operator may collect samples from the common header pipe according to the following:

7.6.a.7.I.1. The owner or operator shall use a sample location upstream from any gas moving, condensate removal or treatment system equipment; and

7.6.a.7.I.2. The owner or operator shall collect a minimum of three samples.

7.6.a.8. Tier 2 procedures.

7.6.a.8.A. The owner or operator shall submit the NMOC concentration results and the NMOC mass emission rate per paragraph 7.9.j.2 within 60 days from the date the owner or operator determined the NMOC concentration and corresponding NMOC emission rate.

7.6.a.8.B. The owner or operator shall recalculate the NMOC mass emission rate using Equation 2 or Equation 3 using the average site-specific NMOC concentration from the collected samples instead of the default value provided in paragraph 7.6.a.3.

7.6.a.8.C. If the resulting NMOC mass emission rate is less than 34 megagrams per year, the owner or operator shall submit an estimate of NMOC emissions in the NMOC emission rate report according to subdivision 7.9.c and shall recalculate the NMOC mass emission rate annually per subdivision 7.4.e. The owner or operator shall retest the site-specific NMOC concentration every five years using the methods specified in subsection 7.6.

7.6.a.8.D. If the owner or operator calculates the NMOC mass emission rate using the Tier 2 site specific NMOC concentration and it is equal to or greater than 34 megagrams per year, the owner or operator shall either:

7.6.a.8.D.1. Submit a gas collection and control system design plan within one year per subdivision 7.9.d and install and operate a gas collection and control system within 30 months per subdivisions 7.4.b and 7.4.c;

7.6.a.8.D.2. Determine a site-specific methane generation rate constant and recalculate the NMOC emission rate using the site specific methane generation rate using the Tier 3 procedures specified in paragraph 7.6.a.9.; and

7.6.a.8.D.3. Conduct a surface emission monitoring demonstration using the Tier 4 procedures specified in paragraph 7.6.a.11.

7.6.a.9. Tier 3. -- Site specific methane generate rate constant. The owner or operator shall:

7.6.a.9.A. Determine the site-specific methane generation rate constant using the procedures in Method 2E of 40 CFR Part 60, Appendix A and 45CSR16;

7.6.a.9.B. Estimate the NMOC mass emission rate using Equation 2 or Equation 3 with the site-specific methane generation rate constant and the site-specific NMOC concentration as determined in paragraph 7.6.a.7;

7.6.a.9.C. Compare the resulting NMOC mass emission rate to the standard of 34 megagrams per year;

7.6.a.9.D. If the NMOC mass emission rate calculated using the Tier 2 site specific NMOC concentration and the Tier 3 site specific methane generation rate is equal to or greater than 34 megagrams per year, either:

7.6.a.9.D.1. Submit a gas collection and control system design plan within one year as per subdivision 7.9.d and install and operate a gas collection and control system within 30 months according to subdivisions 7.4.b and 7.4.c; or

7.6.a.9.D.2. Conduct a surface emission monitoring demonstration using the Tier 4 procedures specified in paragraph 7.6.a.11.

7.6.a.9.E. If the NMOC mass emission rate is less than 34 megagrams per year, the owner or operator shall:

7.6.a.9.E.1. Recalculate the NMOC mass emission rate annually using Equation 2 or Equation 3, using the site-specific Tier 2 NMOC concentration and the Tier 3 methane generation rate constant; and

7.6.a.9.E.2. Submit the NMOC emission rate report per subdivision 7.9.c.

7.6.a.9.F. Use the value obtained for the methane generation rate constant in all subsequent annual NMOC emission rate calculations. The methane generation rate constant is calculated only once.

7.6.a.10. Other methods. -- The owner or operator may use other methods to determine the NMOC concentration or a site specific methane generation rate constant as an alternative to the methods required by paragraphs 7.6.a.3 and 7.6.a.4 if the Administrator approved the method in advance.

7.6.a.11. Tier 4. -- Surface emission monitoring demonstration.

7.6.a.11.A. Applicability. The owner or operator shall only use Tier 4 procedures if the unit can demonstrate the following:

7.6.a.11.A.1. Surface methane emissions are below 500 ppm;

7.6.a.11.A.2. NMOC emissions are greater than or equal to 34 Mg/yr but less than 50 Mg/yr using Tier 1 or Tier 2 procedures;

7.6.a.11.A.3. The landfill meets the requirements of subparagraph 7.6.a.11.J below; and

7.6.a.11.A.4. NMOC emissions are less than 50Mg/yr as indicated by both Tier 1 and Tier 2; if NMOC emissions are greater than 50Mg/yr, the owner or operator shall not use Tier 4.

7.6.a.11.B. The owner or operator shall conduct surface emission monitoring quarterly according to the requirements in paragraph 7.6.a.11.

7.6.a.11.C. The owner or operator shall measure methane surface concentrations using an organic vapor analyzer, flame ionization detector or other portable monitor that meets the requirements of subdivision 7.7.d along the entire perimeter of the landfill and along a pattern that traverses the landfill at less than 30 meter intervals.

7.6.a.11.D. The owner or operator shall determine the background concentration by moving the probe inlet upwind and downwind at least 30 meters from the waste mass boundary of the landfill.

7.6.a.11.E. The owner or operator shall perform surface emission monitoring per Section

8.3.1 of Method 21 of 40 CFR Part 60, Appendix A and 45CSR16, except that the probe inlet shall be placed no more than five centimeters above the landfill surface and measured with a mechanical device such as a wheel on a pole.

7.6.a.11.E.1. The owner or operator shall use a wind barrier, similar to a funnel, when onsite average wind speed exceeds four miles per hour or two meters per second or gusts exceeding ten miles per hour. The owner or operator shall also determine average on-site wind speed in an open area at five minute intervals using an on-site anemometer with a continuous recorder and data logger for the entire duration of the monitoring event. The wind barrier shall surround the surface emission monitor and shall be placed on the ground to ensure wind turbulence is blocked. The owner or operator shall not conduct surface emission monitoring if average wind speed exceeds 25 miles per hour.

7.6.a.11.E.2. The owner or operator shall monitor landfill surface areas using a device that meets the specifications of subdivision 7.7.d where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover, and all cover penetrations.

7.6.a.11.F. The owner or operator shall maintain records of surface emission monitoring per subdivision 7.10.g and submit a Tier 4 surface emissions report per subparagraph 7.9.d.4.C.

7.6.a.11.G. The owner or operator shall submit a gas collection and control system design plan if there is any measured methane 500 ppm or greater from the surface of the landfill within one year of the first measured methane concentration of 500 ppm or greater from the surface of the landfill according to subdivision 7.9.d. The owner or operator shall install and operate a gas collection and control system according to subdivisions 7.4.b and 7.4.c within 30 months of the most recent NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year based on Tier 2 requirements.

7.6.a.11.H. After four consecutive quarterly monitoring periods at a landfill, other than a closed landfill, if there is no measured methane concentration of 500 ppm or greater from the landfill surface, the owner or operator shall continue quarterly surface emission monitoring per Tier 4 requirements.

7.6.a.11.I. After four consecutive quarterly monitoring periods at a closed landfill, if there is no measured methane concentration of 500 ppm or greater from the landfill surface, the owner or operator shall conduct annual surface emission monitoring using the Tier 4 methods.

7.6.a.11.J. If the owner or operator installed and operated a collection and control system that is not required by section 7, then the collection and control system shall meet the following criteria:

7.6.a.11.J.1. Preceding the Tier 4 surface emissions monitoring demonstration, the gas collection and control system shall have operated for a minimum 6,570 out of 8,760 hours; and

7.6.a.11.J.2. During the Tier 4 surface emissions monitoring demonstration, the gas collection and control system shall operate as it would normally to collect and control as much landfill gas as possible.

7.6.b. The owner or operator shall calculate the NMOC emission rate after the installation and startup of a collection and control system to determine when the system can be capped, removed or decommissioned per subdivision 7.4.f, using Equation 4:

$$M_{NMOC} = 1.89\ x\ 10^{-3} Q_{LFG} C_{NMOC} \qquad Equation\ 4$$

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, ppm by volume as hexane.

7.6.b.1. The owner or operator shall determine the flow rate of landfill gas, Q_{LFG}, by measuring the total landfill gas flow rate at the common header pipe leading to the control system using a gas flow measuring device calibrated per Section 10 of Method 2E of 40 CFR Part 60, Appendix A and 45CSR16.

7.6.b.2. The owner or operator shall determine the average NMOC concentration, C_{NMOC}, by collecting and analyzing landfill gas sampled from the common header pipe prior to the gas moving or condensate removal equipment per Method 25 or 25C of 40 CFR Part 60, Appendix A and 45CSR16. The sample location on the common header pipe shall be prior to any condensate removal or other gas refining units. The owner or operator shall divide the NMOC concentration from Method 25 or 25C by six to convert from C_{NMOC} as carbon to C_{NMOC} as hexane.

7.6.b.3. The owner or operator may use another method to determine:

7.6.b.3.A. Landfill gas flow rate if the owner or operator received prior approval for the alternate method by the Administrator; and

7.6.b.3.B. NMOC concentration if the owner or operator received prior approval for the alternate method by the Administrator.

7.6.b.4. The owner or operator shall submit the results from Equation 4 within 60 days after the date of calculating the NMOC emission rate per paragraph 7.9.j.2.

7.6.c. When calculating emissions for Prevention of Significant Deterioration purposes, the owner or operator shall estimate the NMOC emission rate for comparison to the Prevention of Significant Deterioration major source and significance levels in 45CSR14 using the Compilation of Air Pollutant Emission Factors, Volume I: Stationary Point and Area Sources (AP-42) or other approved measurement procedures.

7.6.d. For the performance test required by paragraph 7.4.c.2, the owner or operator shall calculate the net heating value of the combusted landfill gas as determined in 40 CFR § 60.18(f)(3) and 45CSR16 from the methane concentration in the landfill gas as measured by Method 3C. The owner or operator shall take a minimum of three 30-minute Method 3C samples, but need not take the measurement of other organic components, hydrogen, and carbon monoxide. The owner or operator may use Method 3C determine the landfill gas molecular weight for calculating the flare gas exit velocity under 40 CFR § 60.18(f)(4).

7.6.e. For the performance test required by paragraph 7.4.c.2, the owner or operator shall use Method 25 or 25C (the owner or operator may use Method 25C at the inlet only) of 40 CFR Part 60, Appendix A and 45CSR16 to determine compliance with the 98 weight-percent efficiency or the 20 ppm by volume outlet NMOC concentration level, unless the owner or operator received prior approval by the Administrator for an alternative method per paragraph 7.9.d.2. The owner or operator shall use Method 3, 3A or 3C to determine oxygen for correcting the NMOC concentration as hexane to three percent. In cases where the outlet concentration is less than 50 ppm NMOC as carbon (eight ppm NMOC as hexane), the owner or operator shall use Method 25A in place of Method 25. The owner or operator may use Method 18 in conjunction with Method 25A on a limited basis (compound specific, e.g., methane) or Method 3C to determine methane. The owner or operator shall subtract methane as carbon from the Method 25A total hydrocarbon value as carbon to give NMOC concentration as carbon. The owner or

operator shall divide the NMOC concentration as carbon by six to convert the C_{NMOC} as carbon to C_{NMOC} as hexane. The owner or operator shall use Equation 5 to calculate efficiency:

$$Control\ Efficiency = \frac{(NMOC_{in} - NMOC_{out})}{(NMOC_{in})} \qquad Equation\ 5$$

Where:
$NMOC_{in}$ = Mass of NMOC entering control device.
$NMOC_{out}$= Mass of NMOC exiting control device.

7.6.f. Within 60 days after the date of completing each performance test according to subdivisions 7.6.d and 7.6.e, the owner or operator shall submit the performance test results required by subdivision 7.6.b or 7.6.d, including any associated fuel analyses per paragraph 7.9.j.1.

7.7. Compliance requirements.

7.7.a. The owner or operator shall use the specified methods in subdivisions 7.7.a.1 through 7.7.a.6, except as provided in paragraph 7.9.d.2, to determine whether the gas collection system is in compliance with paragraph 7.4.b.2.

7.7.a.1. To determine compliance with subparagraph 7.4.b.2.A, the owner or operator shall use either Equation 6 or Equation 7 to calculate the maximum expected gas generation flow rate from the landfill. The owner or operator shall use the methane generation rate constant (k) and methane generation potential (L_o) kinetic factors published in the most recent AP-42 or other site specific values the owner or operator has demonstrated to be appropriate and that the Secretary has approved. The owner or operator shall use the value of k determined from the test if k was determined as specified in paragraph 7.6.a.9. The owner or operator shall use a value of no more than 15 years 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.

7.7.a.1.A. For sites with unknown year-to year solid waste acceptance rate:

$$Q_m = 2L_o\, R\left(e^{-kc} - e^{-kt}\right) \qquad Equation\ 6$$

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 = 0 and e^{-kc} =1).

7.7.a.1.B. For sites with known year-to-year solid waste acceptance rate:

$$Q_m = \sum_{i=1}^{n} 2kL_o\, M_i\left(e^{-kt_i}\right) \qquad Equation\ 7$$

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.

7.7.a.1.C. The owner or operator may use the actual flow data to project the maximum expected gas generation flow rate instead of, or in conjunction with, Equation 6 or Equation 7 if the owner or operator installed a collection and control system. If the landfill is still accepting waste, the actual measured flow data will not equal the maximum expected gas generation rate, so the owner or operator shall use calculations using Equation 6 or Equation 7 or other methods to predict the maximum expected gas generation rate over the intended period of use of the gas control system equipment.

7.7.a.2. To demonstrate compliance with subparagraph 7.4.b.2.B determining the sufficient density of gas collectors, the owner or operator shall design a system of vertical wells, horizontal collectors or other collection devices satisfactory to the Secretary that is capable of controlling and extracting gas from all portions of the landfill sufficient to meet all operational and performance standards.

7.7.a.3. To demonstrate compliance with subparagraph 7.4.b.2.C, the owner or operator shall measure gauge pressure in the gas collection header applied to each individual well monthly to determine whether the gas collection system flow rate is sufficient. If a positive pressure exists, the owner or operator shall initiate action to correct the exceedance within five calendar days, except for the three conditions allowed under subdivision 7.5.b.2 below. The owner or operator shall not cause exceedances of other operational or performance standards by use of any attempted corrective measure.

7.7.a.3.A. If negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement of positive pressure, the owner or operator shall conduct a root cause analysis and correct the exceedance as soon as practicable, but not later than 60 days after the first measure of positive pressure. The owner or operator shall keep records per paragraph 7.10.e.3 below.

7.7.a.3.B. If the owner or operator cannot fully implement corrective actions within 60 days following the positive pressure measurement for which the root cause analysis was required, the owner or operator shall conduct a corrective action analysis and develop an implementation schedule to complete the corrective action(s) as soon as practicable, but no more than 120 days following the positive pressure measurement. The owner or operator shall keep records per paragraph 7.10.e.4 below and submit the items required by paragraph 7.9.h.7 in the next annual report.

7.7.a.3.C. If the owner or operator expects corrective action to take longer than 120 days after the initial exceedance to complete, the owner or operator shall submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the Secretary according to paragraphs 7.9.h.7 and 7.9.k and keep records according to paragraph 7.10.e.5.

7.7.a.4. To determine whether excess air infiltration into the landfill is occurring, the owner or operator shall monitor each well monthly for temperature according to paragraph 7.5.b.3 above. If a well exceeds the operating parameter for temperature, the owner or operator shall initiate action to correct the exceedance within five calendar days. Attempted corrective measures shall not cause exceedances of other operational or performance standards.

7.7.a.4.A. If the owner or operator cannot achieve a landfill gas temperature less than 55 degrees Celsius (131 degrees Fahrenheit) within 15 calendar days of the first measurement of landfill gas temperature greater than 55 degrees Celsius (131 degrees Fahrenheit), the owner or operator shall conduct a root cause analysis and correct the exceedance as soon as practicable, but no later than 60 days after the first measurement of landfill gas temperature greater than 55 degrees Celsius (131 degrees Fahrenheit). The owner or operator shall maintain records per paragraph 7.10.e.3 below.

7.7.a.4.B. If the owner or operator cannot fully implement corrective actions within 60 days following the measurement for which the root cause analysis was required, the owner or operator shall also conduct a corrective action analysis and develop an implementation schedule to complete the corrective action(s) as soon as practicable, but no more than 120 days following the measurement of landfill gas temperature greater than 55 degrees Celsius (131 degrees Fahrenheit). The owner or operator shall maintain records per paragraph 7.10.e.4 and submit the information listed in paragraph 7.9.h.7 in the next annual report.

7.7.a.4.C. If the owner or operator expects corrective action to take longer than 120 days after the initial exceedane to complete, the owner or operator shall submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the Secretary according to paragraph 7.9.h.7 and subdivision 7.9.k and maintain records per paragraph 7.10.e.5.

7.7.a.5. An owner or operator seeking to demonstrate compliance with subparagraph 7.4.b.2.D through the use of a collection system that does not meet the specifications of subdivision 7.5.a shall provide information satisfactory to the Administrator according to paragraph 7.9.d.3 demonstrating that the owner or operator is controlling off-site migration.

7.7.b. To comply with paragraph 7.5.b.1, the owner or operator shall place each well or design component as specified in the approved design plan per subdivision 7.9.d. The owner or operator shall install each well no later than 60 days after the date on which the initial solid waste has been in place for a period of:

7.7.b.1. Five years or more if active; or

7.7.b.2. Two years or more if closed or at final grade.

7.7.c. To comply with the surface methane operational standard of paragraph 7.5.b.4, the owner or operator shall follow the procedures listed below:

7.7.c.1. Monitor surface concentrations of methane along the entire perimeter of the collection area and along a pattern that traverses the landfill at no more than 30 meter intervals (or a site-specific established spacing), after installation and startup of the gas collection system, for each collection area on a quarterly basis using an organic vapor analyzer, flame ionization detector or other portable monitor that meets the specifications in subdivision 7.7.d;

7.7.c.2. Determine the background concentration 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;

7.7.c.3. Monitor surface emissions during typical meteorological conditions and according to Section 8.3.1 of Method 21 of 40 CFR Part 60, Appendix A and 45CSR16, except that the probe inlet shall be placed within five to ten centimeters of the ground;

7.7.c.4. Record any reading of 500 ppm or more above background at any location as a monitored exceedance and take the actions specified below. If the owner or operator takes the below-specified actions, the Secretary shall not consider the exceedance a violation of the operational requirements of paragraph 7.5.b.4. The owner or operator shall:

7.7.c.4.A. Mark the location of each monitored exceedance and record the location and concentration by determining location using the latitude and longitude coordinates found by an instrument with an accuracy of at least found meters and written in decimal degrees with at least five decimal places;

7.7.c.4.B. Perform cover maintenance or adjust the vacuum of the adjacent wells to increase gas collection in the vicinity of each exceedance and re-monitor the location within ten calendar

days of detecting the exceedance;

7.7.c.4.C. Take additional corrective action if the re-monitoring of the location shows a second exceedance and monitor the location again within ten days of the second exceedance. If the re-monitoring shows a third exceedance for the same location, stop monitoring and take the action specified under subparagraph 7.7.c.4.E;

7.7.c.4.D. Re-monitor one month from the initial exceedance any location that initially showed an exceedance but has a methane concentration less than 500 ppm methane above background at the ten-day re-monitoring specified above. If the one month re-monitoring shows a concentration less than 500 ppm above background, then the owner or operator is not required to perform further monitoring of that location until the next quarterly monitoring period. If the one-month re-monitoring shows an exceedance, the owner or operator shall take the actions specified under subparagraphs 7.7.c.4.C or 7.7.c.4.E; and

7.7.c.4.E. For any location where monitored methane concentration equals or exceeds 500 ppm above background three times within a quarterly period, the owner or operator shall install a new well or other collection device within 120 calendar days of the initial exceedance. The owner or operator may submit to the Secretary for approval an alternative solution to the exceedance, such as upgrading the blower, header pipes or control device, and a corresponding timeline for installation.

7.7.c.5. Implement a program to monitor cover integrity on a monthly basis and implement cover repairs as necessary.

7.7.d. The owner or operator shall meet the following instrumentation specifications and procedures for surface emission monitoring devices to comply with the provisions in subdivision 7.7.c or paragraph 7.6.a.11:

7.7.d.1. The portable analyzer shall meet the instrument specifications of Section 6 of Method 21 of 40 CFR Part 60, Appendix A and 45CSR16 except that "methane" replaces all references to "VOC";

7.7.d.2. The calibration gas shall be methane, diluted to a nominal concentration of 500 ppm in air;

7.7.d.3. To meet the performance evaluation requirements in Section 8.1 of Method 21 of 40 CFR Part 60, Appendix A and 45CSR16, use the instrument evaluation procedures of Section 8.1 of Method 21; and

7.7.d.4. Follow the calibration procedures in Sections 8 and 10 of Method 21 of 40 CFR Part 60, Appendix A and 45CSR16 immediately before starting a surface monitoring survey.

7.8. Monitoring requirements.

7.8.a. To comply with paragraph 7.4.b.2 for an active gas collection system, the owner or operator shall install a sampling port and a thermometer, other temperature measuring device or an access port for temperature measurements at each wellhead and:

7.8.a.1. Measure the gauge pressure in the gas collection header monthly per paragraph 7.7.a.3; and

7.8.a.2. Monitor nitrogen or oxygen concentration in the landfill gas monthly as follows:

7.8.a.2.A. Determine the nitrogen level using Method 3C, unless the owner or operator

establishes an alternative test method as allowed by paragraph 7.9.d.2;

7.8.a.2.B. Determine the oxygen level using an oxygen meter using Method 3A, 3C or ASTM D6522-11 (if sample location is prior to combustion) unless the owner or operator establishes an alternative test method as allowed by paragraph 7.9.d.2, except that:

7.8.a.2.B.1. The span shall be set between ten percent and 12% oxygen;

7.8.a.2.B.2. A data recorder is not required;

7.8.a.2.B.3. Only two calibration gases are required, a zero and span;

7.8.a.2.B.4. A calibration error check is not required; and

7.8.a.2.B.5. The allowable sample bias, zero drift, and calibration drift are plus or minus 10 percent.

7.8.a.2.C. Use a portable gas composition analyzer to monitor the oxygen levels: provided, that:

7.8.a.2.C.1. The analyzer is calibrated; and

7.8.a.2.C.2. The analyzer meets all quality assurance and quality control requirements for Method 3A or ASTM D6522-11.

7.8.a.3. Monitor the temperature of the landfill gas on a monthly basis per paragraph 7.7.a.4, calibrating the temperature measuring device annually using the procedure in Section 10.3 of Method 2 of 40 CFR Part 60, Appendix A-1 and 45CSR16.

7.8.b. If the owner or operator seeks to comply with subdivision 7.4.c using an enclosed combustor, the owner or operator shall calibrate, maintain, and operate the following equipment according to the manufacturer's specifications:

7.8.b.1. A temperature monitoring device equipped with a continuous recorder and having a minimum accuracy of plus or minus one percent of the temperature being measured expressed in degrees Celsius or plus or minus 0.5 degrees Celsius, whichever is greater. A temperature monitoring device is not required for boilers or process heaters with design heat input capacity equal to or greater than 44 megawatts;

7.8.b.2. For a device that records flow to the control device and bypass of the control device (if applicable), the owner or operator shall:

7.8.b.2.A. Install, calibrate, and maintain a gas flow rate measuring device that records the flow to the control device at least every 15 minutes; and

7.8.b.2.B. Secure the bypass line valve in the closed position with a car-seal or a lock and key type configuration, performing a visual inspection of the seal or closure mechanism at least once every month to ensure that the valve is maintained in the closed position and the gas flow is not diverted through the bypass line.

7.8.c. If the owner or operator chooses to comply with subdivision 7.4.c using a non-enclosed flare, the owner or operator shall install, calibrate, maintain, and operate the following equipment according to the manufacturer's specifications:

7.8.c.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;

7.8.c.2. For a device that records flow to the flare and bypass of the flare (if applicable), the owner or operator shall:

7.8.c.2.A. Install, calibrate, and maintain a gas flow rate measuring device that records the flow to the control device at least every 15 minutes; and

7.8.c.2.B. Secure the bypass line valve in the closed position with a car-seal or a lock and key type configuration, performing a visual inspection of the seal or closure mechanism 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.

7.8.d. If the owner or operator chooses to comply with subdivision 7.4.c using a device other than a non-enclosed flare or an enclosed combustor or a treatment system, the owner or operator shall provide information per paragraph 7.9.d.2 to the Administrator that describes 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 the owner or operator submit additional information. The Administrator may specify additional appropriate monitoring procedures.

7.8.e. If the owner or operator chooses to install a collection system that does not meet the specifications of subdivision 7.5.a or seeks to monitor alternative parameters to those required by subdivisions 7.5.b, 7.6, 7.7, and 7.8, the owner or operator shall provide information satisfactory to the Administrator as provided in paragraphs 7.9.d.2 and 7.9.d.3 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.

7.8.f. To demonstrate compliance with the 500 ppm surface methane operational standard in paragraph 7.5.b.4, the owner or operator shall monitor surface concentrations of methane according to the requirements of subdivision 7.7.c and the instrument specifications of subdivision 7.7.d. The owner or operator may change to annual monitoring of any closed landfill that does not have monitor exceedances of the operational standard in three consecutive quarterly monitoring periods. If the owner or operator detects any methane reading of 500 ppm or more above background during the annual monitoring, the owner or operator shall resume quarterly monitoring.

7.8.g. To demonstrate compliance with the control system requirements in subdivision 7.4.c using a landfill gas treatment system, the owner or operator shall maintain and operate all monitoring systems associated with the treatment system according to the site-specific treatment system monitoring plan per subparagraph 7.10.b.5.B. The owner or operator shall calibrate, maintain, and operate a device that records flow to the treatment system and bypass of the treatment system, if applicable, according to the manufacturer's specifications by:

7.8.g.1. Installing, calibrating, and maintaining a gas flow rate measuring device that records the flow to the treatment system at least every 15 minutes; and

7.8.g.2. Securing the bypass line valve in the closed position with a car-seal or a lock and key type configuration, performing a visual inspection of the seal or closure mechanism 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.

7.8.h. The monitoring requirements of subdivisions 7.8.b, 7.8.c, 7.8.d, and 7.8.g apply at all times the affected source is operating, except for periods of monitoring system malfunctions, repairs

associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. The owner or operator is required to complete monitoring system repairs in response to monitoring system malfunctions and to return the monitoring system to operation as expeditiously as practicable.

7.9. Reporting requirements.

7.9.a. Design capacity report. -- The owner or operator shall submit the initial design capacity report no later than one year from the effective date of this rule. The initial design capacity report shall contain the following information:

7.9.a.1. 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; and

7.9.a.2. The maximum design capacity of the landfill. If the permit specifies the maximum design capacity, the owner or operator may submit a copy of the permit specifying the maximum design capacity as part of the report. If the permit does not specify the maximum design capacity of the landfill, the owner or operator shall calculate the maximum design capacity using good engineering practices. The owner or operator shall provide the calculations, along with the relevant parameters, as part of the report. The owner or operator may calculate design capacity in either megagrams or cubic meters for comparison with the exemption values. If the owner or operator chooses to convert the design capacity from volume to mass or from mass to volume to demonstrate the design capacity is less than 2.5 million megagrams or 2.5 million cubic meters, the calculation shall include a site-specific density, which the owner or operator shall recalculate annually. The owner or operator shall document any density conversions and submit them with the design capacity report. The Secretary may request other reasonable information as may be necessary to verify the maximum design capacity of the landfill.

7.9.b. Amended design capacity report. -- The owner or operator shall submit an amended design capacity report to provide notification of an increase of the landfill maximum design capacity within 90 days of a maximum design capacity that meets or exceeds 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 by subdivision 7.10.f.

7.9.c. NMOC emission rate report. -- For existing MSWLs with a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters, the owner or operator shall submit the NMOC emission rate report per paragraph 7.9.j.2 no later than one year from the effective date of this rule. The owner or operator shall submit the NMOC emission rate report to the Secretary annually per paragraph 7.9.j.2, except as provided for in paragraph 7.9.c.3. The Secretary may request additional information as may be necessary to verify the reported NMOC emission rate. The NMOC emission rate report shall:

7.9.c.1. Contain an annual or five-year estimate of the NMOC emission rate calculated using the formula and procedures in subdivisions 7.6.a or 7.6.b, as applicable; and

7.9.c.2. Include all the data, calculations, sample reports, and measurements used to estimate the annual or five year emissions.

7.9.c.3. The owner or operator may follow the requirements in paragraph 7.9.j.2 and submit an estimate of the NMOC emission rate for the next five-year period in lieu of the annual report if the estimated NMOC emission rate in the annual report is less than 34 megagrams per year in each of five consecutive years. This estimate shall include the current amount of solid waste in place and the

estimated waste acceptance rate for each year of the five years for which an NMOC emission rate is estimated. The owner or operator shall submit to the Secretary all data and calculations upon which it based this estimate. The owner or operator shall revise this estimate at least once every five years. If the actual waste acceptance rate exceeds the estimated waste acceptance rate in any year reported in the five year estimate, the owner or operator shall submit to the Secretary a revised five-year estimate, which shall cover the five-year period beginning with the year in which the actual waste acceptance rate exceeded the estimated waste acceptance rate.

7.9.c.4. The owner or operator is exempt from the requirement to submit an NMOC emission rate report after it installs a collection and control system that complies with subdivisions 7.4.b and 7.4.c during the time the collection and control system is in operation and complies with subdivision 7.5.b and subsection 7.7.

7.9.d. Collection and control system design plan. -- The owner or operator shall prepare the collection and control system design plan, which shall be approved by a professional engineer and shall meet the following requirements:

7.9.d.1. The collection and control system described in the design plan shall meet the design requirements of subdivisions 7.4.b and 7.4.c.;

7.9.d.2. 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 subdivision 7.5.b and subsections 7.6 through 7.10 proposed by the owner or operator;

7.9.d.3. The collection and control system design plan shall either conform to specifications for active collection systems in subdivision 7.5.a or include a demonstration of sufficiency for the alternative provisions to subdivision 7.5.a that is satisfactory to the Administrator;

7.9.d.4. Each owner or operator of a MSWL having a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters shall submit to the Secretary, within one year of the first NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year, a copy of the collection and control system design plan cover page that contains the professional engineer's seal, except as follows:

7.9.d.4.A. If the owner or operator elects to recalculate the NMOC emission rate after the Tier 2 NMOC sampling and analysis in paragraph 7.6.a.9 and the resulting rate is less than 34 megagrams per year, the owner or operator shall resume annual periodic reporting using the Tier 2 determined site-specific NMOC concentration, until the calculated NMOC emission rate is equal to or greater than 34 megagrams per year or the owner or operator closes the landfill. The owner or operator shall submit, per paragraph 7.9.j.2 and within 180 days of the first calculated exceedance of 34 megagrams per year, the revised NMOC emission rate report with the recalculated NMOC emission rate based on NMOC sampling and analysis.

7.9.d.4.B. If the owner or operator elects to recalculate the NMOC emission rate after determining a site-specific methane generation rate constant k, for Tier 3 per paragraph 7.6.a.9, and the resulting NMOC emission rate is less than 34 megagrams per year, the owner or operator shall resume annual periodic reporting. The owner or operator shall use the resulting site-specific methane generation rate constant k in the NMOC emission rate calculation until such time as the emissions rate calculation results in an exceedance. The owner or operator shall submit to the Secretary, per paragraph 7.9.j.2 and within one year of the first calculated NMOC emission rate equaling or exceeding 34 megagrams per year, the revised NMOC emission rate report based on the provisions of paragraph 7.6.a.9 and the resulting site specific methane generation rate constant k.

7.9.d.4.C. If the owner or operator elects to demonstrate that site-specific surface methane emissions are below 500 ppm methane, based on the provisions of paragraph 7.6.a.11, then the owner or operator shall annually submit a Tier 4 surface emissions report per paragraph 7.9.j.2 until the report shows a surface emissions reading of 500 ppm methane or greater. If the Tier 4 surface emissions report shows no surface emissions readings of 500 ppm methane or greater for four consecutive quarters at a closed landfill, then the owner or operator may reduce Tier 4 monitoring from a quarterly to an annual frequency. The Secretary may request additional information that may be necessary to verify the reported instantaneous surface emission readings. The Tier 4 surface emissions report shall clearly identify the location, date and time (to the nearest second), average wind speeds (including wind gusts), and reading (in ppm) of any value 500 ppm methane or greater, other than nonrepeatable, momentary readings. The owner or operator shall determine the latitude and longitude coordinates using an instrument with an accuracy of at least four meters for location, stating the coordinates in decimal degrees with at least five decimal places. The Tier 4 surface emission report shall also include the results of the most recent Tier 1 and Tier 2 results in order to verify that the landfill does not exceed 50 Mg/yr of NMOC.

7.9.d.4.C.1. The owner or operator shall submit the initial annual Tier 4 surface emissions report within 30 days of completing the fourth quarter of Tier 4 surface emissions monitoring that demonstrates that site specific surface methane emissions are below 500 ppm methane and following the procedure specified in paragraph 7.9.j.2 below; and

7.9.d.4.C.2. The owner or operator shall submit the Tier 4 surface emissions rate report within one year of the first measured surface exceedance of 500 ppm methane, following the procedure specified in paragraph 7.9.j.2 below.

7.9.d.4.D. If the landfill is in the closed landfill subcategory, the owner or operator shall submit a collection and control system design plan to the Secretary within one year of the first NMOC emission rate report in which the NMOC emission rate equals or exceeds 50 megagrams per year, except as follows:

7.9.d.4.D.1. If the owner or operator elects to recalculate the NMOC emission rate after the Tier 2 NMOC sampling and analysis under paragraph 7.6.a.7 and the resulting rate is less than 50 megagrams per year, the owner or operator shall resume annual periodic reporting using the Tier 2 determined site-specific NMOC concentration, until the calculated NMOC emission rate is equal to or greater than 50 megagrams per year or the owner or operator closes the landfill. The owner or operator shall submit the revised NMOC emission rate report, with the recalculated NMOC emission rate based on NMOC sampling and analysis, following the procedure specified in paragraph 7.9.j.2, within 180 days of the first calculated exceedance of 50 megagrams per year.

7.9.d.4.D.2. If the owner or operator elects to recalculate the NMOC emission rate after determining a site specific methane generation rate constant k for Tier 3 under paragraph 7.6.a.9, and the resulting NMOC emission rate is less than 50 megagrams per year, the owner or operator shall resume annual periodic reporting. The owner or operator shall use the resulting site specific methane generation rate constant k in the NMOC emission rate calculation until the emissions rate calculation results in an exceedance. The owner or operator shall submit the revised NMOC emission rate report per paragraph 7.6.a.9 and the resulting site-specific methane generation rate constant k, to the Secretary following the procedure specified in paragraph 7.9.j.2 within one year of the first calculated NMOC emission rate equaling or exceeding 50 megagrams per year.

7.9.d.4.D.3. If the owner or operator elects to demonstrate surface emissions are low, consistent with the provisions in subparagraph 7.9.d.4.C; and

7.9.d.4.D.4. The owner or operator has already submitted a gas collection and control system design plan consistent with the provisions of section 4 or section 6 of this rule.

7.9.d.5. The owner or operator shall notify the Secretary that the design plan is completed and submit a copy of the plan's signature page. The Secretary shall decide within 90 days whether the owner or operator should submit the design plan for review. If the Secretary chooses to review the plan, the approval process continues as described in paragraph 7.9.c.6. However, if the Secretary indicates that submission is not required or does not respond within 90 days, the owner or operator may continue to implement the plan with the recognition that it is proceeding at its own risk. If the Secretary requires the owner or operator to modify the design plan in order to obtain approval, the owner or operator shall take any steps necessary to conform any prior actions to the approved design plan, and the owner's or operator's failure to do so may result in an enforcement action by the Secretary.

7.9.d.6. Upon receipt of an initial or revised design plan, the Secretary shall review the information submitted under paragraphs 7.9.d.1 through 7.9.d.3 and either approve it, disapprove it or request that the owner or operator submit additional information. 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. If the Secretary 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 that it will be proceeding at its own risk.

7.9.d.7. If the owner or operator chooses to demonstrate compliance with the emission control requirements using a treatment system, then the owner or operator shall prepare a site-specific treatment system monitoring plan as specified in paragraph 7.10.b.5 below.

7.9.e. Revised design plan. -- If the owner or operator is required to submit a design plan under subdivision 7.9.d or sections 4 or 6, the owner or operator shall submit a revised design plan to the Secretary for approval as follows:

7.9.e.1. At least 90 days before expanding operations to an area not covered by the previously approved design plan; or

7.9.e.2. Prior to installing or expanding the gas collection system in a way that is not consistent with the design plan submitted to the Secretary per subdivision 7.9.d.

7.9.f. Closure report. -- The owner or operator shall submit a closure report to the Secretary within 30 days of ceasing waste acceptance. The Secretary may request additional information as may be necessary to verify that permanent closure has taken place per the requirements of 40 CFR § 258.60. If the owner or operator has submitted a closure report to the Secretary, the owner or operator may not place any additional wastes into the landfill without filing a notification of modification as described under 40 CFR § 60.7(a)(4).

7.9.g. Equipment removal report. -- The owner or operator shall submit an equipment removal report to the Secretary 30 days prior to removal or cessation of operation of the control equipment, which report shall contain the following:

7.9.g.1. A copy of the closure report submitted per subdivision 7.9.f. and:

7.9.g.2. A copy of the initial performance test report demonstrating that the 15-year minimum control period has expired, unless the performance test results report has been submitted to the EPA via the EPA's CDX or information that demonstrates that the gas collection and control system will be unable to operate for 15 years due to declining gas flows; or, in lieu thereof, a report stating the process unit(s) tested, the pollutant(s) tested, and the date that the performance test was conducted, if the owner or operator previously submitted this report to the EPA's CDX; and

7.9.g.3. Dated copies of three successive NMOC emission rate reports demonstrating the landfill is no longer producing 34 megagrams or greater of NMOC per year, unless the owner or operator submitted the NMOC emission rate reports to the EPA via the EPA's CDX; or, in lieu thereof, if the owner or operator has previously submitted the NMOC emission rate reports to the EPA's CDX, a statement that the owner or operator submitted the NMOC emission rate reports electronically, along with the dates that the reports were submitted; or

7.9.g.4. For the closed landfill subcategory, 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; or, in lieu thereof, a statement that the owner or operator submitted the NMOC emission rate reports electronically to EPA's CDX, along with the dates that the owner or operator electronically submitted the reports.

7.9.g.5. The Secretary may request additional information as may be necessary to verify that the owner or operator has met all of the conditions for removal under subdivision 7.4.f.

7.9.h. Annual report. -- If the owner or operator chooses to comply with paragraph 7.4.e.2 using an active collection system designed per subdivision 7.4.b, the owner or operator shall submit an annual report to the Secretary according to paragraph 7.9.j.2, containing the information listed in paragraphs 7.9.h.1 through 7.9.h.7. The owner or operator shall submit the initial annual report within 180 days of installation and startup of the collection and control system. The initial annual report shall include the initial performance test report required under 40 CFR § 60.8, as applicable, unless the performance test results report has been submitted to the EPA via the EPA's CDX, in which case, the owner or operator may submit, in lieu thereof, a statement that the owner or operator electronically filed the performance test report, the process unit(s) tested, the pollutant(s) tested, and the date that the owner or operator conducted the performance test. The owner or operator shall submit the initial performance test report per paragraph 7.9.j.1 before the date it submits the initial annual report. For enclosed combustion devices and flares, reportable exceedances are defined under paragraph 7.10.c.1. The annual report shall contain:

7.9.h.1. The value and length of time for exceedance of applicable parameters monitored under paragraph 7.8.a.1 and subdivisions 7.8.b, 7.8.c, 7.8.d, and 7.8.g;

7.9.h.2. A description and duration of all periods when the gas stream was diverted from the control device or treatment system through a bypass line or the indication of bypass flow as specified in section 7.8;

7.9.h.3. A description and duration of all periods when the control device or treatment system was not operating and length of time the control device or treatment system was not operating;

7.9.h.4. All periods when the collection system was not operating;

7.9.h.5. The location of each exceedance of the 500 ppm methane concentration per subdivision 7.5.b.4 and the concentration recorded at each location for which an exceedance was recorded in the previous month, determining the latitude and longitude coordinates using an instrument with an accuracy of at least four meters for the location, which coordinates shall be in decimal degrees with at least five decimal places;

7.9.h.6. The date of installation and the location of each well or collection system expansion added pursuant to 7.7.a.3, 7.7.a.4, 7.7.b, and 7.7.c.4; and

7.9.h.7. For any corrective action analysis for which corrective actions are required by 7.7.a.3 or 7.7.a.4 and that take more than 60 days to correct the exceedance, the root cause analysis conducted, including a description of the recommended corrective action(s), the date for corrective

action(s) already completed following the positive pressure reading, and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates.

7.9.i. Initial performance test report. -- To comply with subdivision 7.4.c, the owner or operator shall include the following information with the initial performance test report required under 40 CFR § 60.8 and 45CSR16:

7.9.i.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;

7.9.i.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;

7.9.i.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;

7.9.i.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;

7.9.i.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

7.9.i.6. The provisions for the control of off-site migration.

7.9.j. Electronic reporting. -- The owner or operator shall submit reports electronically according to the following:

7.9.j.1. Within 60 days after the date of completing each performance test (as defined in 40 CFR § 60.8), the owner or operator shall submit the results of each performance test according to the following procedures:

7.9.j.1.A. For data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT website at the time of the test, the owner or operator shall submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI), which can be accessed through EPA's Central Data Exchange (CDX). The owner or operator shall submit performance test data in a file format generated through the use of the EPA's ERT or an alternative file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT website, once the XML schema is available. If the owner or operator claims that some of the performance test information being submitted is confidential business information (CBI), the owner or operator shall submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website, including information claimed to be CBI, on a compact disc, flash drive or other commonly used electronic storage media to the EPA. The owner or operator shall clearly mark electronic media shall be clearly marked as CBI and mailed to the EPA at the address listed on EPA's ERT website. The owner or operator shall submit the same ERT or alternate file with the CBI omitted to the EPA via the EPA's CDX as described earlier in this subparagraph.

7.9.j.1.B. For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT website at the time of the test, the owner or operator shall submit the results of the performance test to the Administrator at the appropriate address listed in 40 CFR § 60.4.

7.9.j.2. Each owner or operator required to submit reports following the procedure specified in this paragraph shall submit reports to the EPA via the CEDRI, which can be accessed through the EPA's CDX. The owner or operator shall use the appropriate electronic report in CEDRI for this submission or an alternate electronic file format consistent with the XML schema listed on the CEDRI website. If the specific reporting form is not available in CEDRI at the time that the report is due, the owner or operator shall submit the report to the Administrator at the appropriate address listed in 40 CFR § 60.4. Once the form has been available in CEDRI for 90 calendar days, the owner or operator shall submit all subsequent reports via CEDRI. The owner or operator shall submit the reports by the deadlines specified in section 7, regardless of the method of submittal.

7.9.k. Corrective action and the corresponding timeline. -- The owner or operator shall submit the following:

7.9.k.1. For corrective action that is required by subparagraph 7.7.a.3.C or 7.7.a.4.C and that is expected to take longer to complete than 120 days after the initial exceedance, the owner or operator shall submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the Secretary as soon as practicable but no later than 75 days after the first measurement of positive pressure or temperature monitoring value of 55 degrees Celsius (131 degrees Fahrenheit) or above. The Secretary shall approve the plan for corrective action and the corresponding timeline.

7.9.k.2. For corrective action that is required by subparagraph 7.7.a.3.C or 7.7.a.4.C and that is not completed within 60 days after the initial exceedance, the owner or operator shall submit a notification to the Secretary as soon as practicable but no later than 75 days after the first measurement of positive pressure or temperature exceedance.

7.9.l. Liquids addition. -- The owner or operator of an affected landfill with a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters that has employed leachate recirculation or added liquids based on a Research, Development, and Demonstration permit (issued through Resource Conservation and Recovery Act, subtitle D, part 258) within the last ten years shall annually submit to the Secretary, per paragraph 7.9.j.2, the following information:

7.9.l.1. Volume of leachate recirculated (gallons per year) and the reported basis of those estimates (records or engineering estimates);

7.9.l.2. Total volume of all other liquids added (gallons per year) and the reported basis of those estimates (records or engineering estimates);

7.9.l.3. Surface area (acres) over which the leachate is recirculated (or otherwise applied);

7.9.l.4. Surface area (acres) over which any other liquids are applied;

7.9.l.5. The total waste disposed (megagrams) in the areas with recirculated leachate and/or added liquids based on on-site records, to the extent data are available, or engineering estimates and the reported basis of those estimates; and

7.9.l.6. The annual waste acceptance rates (megagrams per year) in the areas with recirculated leachate and/or added liquids based on on-site records, to the extent data are available, or engineering estimates.

7.9.l.7. The initial report shall contain items in paragraphs 7.9.l.1 through 7.9.l.6 on an annual basis for the most recent 365 days, as well as for each of the previous ten years, to the extent historical data are available in on-site records, which report shall be submitted no later than:

7.9.l.7.A. September 27, 2017 for landfills that commenced construction, modification or reconstruction after July 17, 2014 but before August 29, 2016; or

7.9.l.7.B. One year (365 days) after the date of commenced construction, modification or reconstruction for landfills that commence construction, modification or reconstruction after August 29, 2016.

7.9.l.8. Subsequent annual reports shall contain items in 7.9.l.1 through 7.9.l.6 for the annual (365 days) period following the period included in the previous annual report (365 days), which report shall be submitted no later than 365 days after the date the previous report was submitted.

7.9.l.9. Landfills in the closed landfill subcategory are exempt from the reporting requirements contained in paragraphs 7.9.l.1 through 7.9.l.7.

7.9.l.10. The owner or operator may cease annual reporting of items in paragraphs 7.9.l.1 through 7.9.l.6 after the owner or operator has submitted the closure report per subdivision 7.9.f.

7.9.m. Tier 4 notification.

7.9.m.1. The owner or operator of an affected landfill with a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters shall provide a notification of the date(s) the owner or operator intends to demonstrate site specific surface methane emissions are below 500 ppm methane, based on the Tier 4 provisions of paragraph 7.6.a.11. The owner or operator shall also include a description in the notification of the wind barrier to be used during the surface emission monitoring. Notification shall be postmarked not less than 30 days prior to the Tier 4 surface emission monitor date.

7.9.m.2. If there is a delay to the scheduled Tier 4 surface emission monitor date due to weather conditions, including not meeting the wind requirements of part 7.6.a.11.E.1, the owner or operator shall notify the Secretary by email or telephone no later than 48 hours before any known delay in the original test date and arrange with the Secretary a mutually agreeable new test date.

7.10. Recordkeeping requirements.

7.10.a. Except as provided in paragraph 7.9.d.2, each owner or operator of an MSWL subject to the provisions of subdivision 7.4.e shall keep on-site records of the design capacity report that triggered subdivision 7.4.f, the current amount of solid waste in place, and the year-by-year waste acceptance rate for at least five years up-to-date, readily accessible. The owner or operator may maintain off-site records if they are retrievable within four hours. Either paper copy or electronic formats are acceptable.

7.10.b. Except as provided in paragraph 7.9.d.2, the owner or operator shall keep up-to-date, readily accessible records of the data listed in paragraphs 7.10.b.1 through 7.10.b.5 below, as measured during the initial performance test or compliance determination, for the life of the control system equipment. The owner or operator shall maintain records of subsequent tests or monitoring for a minimum of five years and records of the control device vendor specifications the control device is removed.

7.10.b.1. To demonstrate compliance with the collection system requirements of subdivision 7.4.b, the owner or operator shall keep a record of:

7.10.b.1.A. The maximum expected gas generation flow rate as calculated in paragraph 7.7.a.1. If the Administrator approved another method to determine the maximum gas generation flow rate, the owner or operator may use the other method; and

7.10.b.1.B. The density of wells, horizontal collectors, surface collectors or other gas

extraction devices determined per subparagraph 7.5.a.1.A.

7.10.b.2. To demonstrate compliance with the control system requirements of subdivision 7.4.c through the use of an enclosed combustion device other than a boiler or process heater with a design heat input capacity equal to or greater than 44 megawatts, the owner or operator shall keep a record of:

7.10.b.2.A. The average temperature measured at least every 15 minutes and averaged over the same time period of the performance test; and

7.10.b.2.B. The percent reduction of NMOC achieved by the control device determined per paragraph 7.4.c.2.

7.10.b.3. To demonstrate compliance with paragraph 7.4.c.1 through the use of a non-enclosed flare, the owner or operator shall keep a record of the flare type (i.e., steam assisted, air-assisted or non-assisted), 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 40 CFR § 60.18, as well as continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations during which the pilot flame or the flare flame is absent.

7.10.b.4. To demonstrate compliance with subparagraph 7.4.c.2.A through the use of a boiler or process heater of any size the owner or operator shall keep a record including a description of the location where the collected gas vent stream is introduced into the boiler or process heater over the same time period of the performance testing.

7.10.b.5. To demonstrate compliance with paragraph 7.4.c.3 through the use of a landfill gas treatment system the owner or operator shall keep:

7.10.b.5.A. Bypass records. -- Records of the flow of landfill gas to, and bypass of, the treatment system; and

7.10.b.5.B. A site specific treatment monitoring plan, to include:

7.10.b.5.B.1. Monitoring records of parameters identified in the treatment system monitoring plan and that ensure the treatment system is operating properly for each intended end use of the treated landfill gas. At a minimum, the owner or operator shall include records of filtration, de-watering, and compression parameters that ensure the treatment system is operating properly for each intended end use of the treated landfill gas;

7.10.b.5.B.2. Monitoring methods, frequencies, and operating ranges for each monitored operating parameter based on manufacturer's recommendations or engineering analysis for each intended end use of the treated landfill gas;

7.10.b.5.B.3. Documentation of the monitoring methods and ranges, along with justification for their use;

7.10.b.5.B.4. Identification of who is responsible (by job title) for data collection;

7.10.b.5.B.5. Documentation of processes and methods used to collect the necessary data; and

7.10.b.5.B.6. Description of the procedures and methods that are used for quality assurance, maintenance, and repair of all continuous monitoring systems.

7.10.c. Except as provided in paragraph 7.9.d.2, the owner or operator shall keep for five years

up-to-date, readily accessible, continuous records of the equipment operating parameters required by section 7.8, 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.

7.10.c.1. The following constitute exceedances that the owner or operator shall record and report under section 7.9:

7.10.c.1.A. For enclosed combustors, except for boilers and process heaters with design heat input capacity greater than 44 megawatts (150 million British thermal unit per hour), all three-hour periods of operation that the average temperature was more than 28 degrees Celsius (82 degrees Fahrenheit) below the average combustion temperature that the owner or operator determined compliance with subdivision 7.4.c during the most recent performance test; and

7.10.c.1.B. For boilers or process heaters, whenever there is a change in the location where the vent stream is introduced into the flame zone per paragraph 7.10.b.3.

7.10.c.2. The owner or operator shall keep up-to-date, readily accessible, continuous records of the indication of flow to the control system and the indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines, per section 7.8.

7.10.c.3. If the owner or operator uses a boiler or process heater with a design heat input capacity greater than 44 megawatts to comply with subdivision 7.4.c, the owner or operator shall keep an up-to-date, readily accessible record of all periods of operation of the boiler or process heater (e.g. records of steam use, fuel use or monitoring data collected pursuant to other State, local, tribal or federal regulatory requirements).

7.10.c.4. Each owner or operator seeking to comply with the provisions of section 7 by use of a non-enclosed flare shall keep up-to-date, readily accessible, continuous records of the flame or flare pilot flame monitoring required by subdivision 7.8.c, and up-to-date, readily accessible records of all periods of operation in which the flame or flare pilot flame is absent.

7.10.c.5. Each owner or operator seeking to comply with subdivision 7.4.e using an active collection system designed per subdivision 7.4.b, shall keep records of periods when the collection system or control device is not operating.

7.10.d. The owner or operator shall keep an up-to-date, readily accessible plot map showing each existing and planned collector in the system and providing a unique identification location label on each collector that matches the labeling on the plot map for the life of the collection system, except as provided in paragraph 7.9.d.2. below. The owner or operator shall keep:

7.10.d.1. Up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified under subdivision 7.7.b.; and

7.10.d.2. Readily accessible documentation of the nature, date of deposition, amount, and location of asbestos containing or nondegradable waste excluded from collection under part 7.5.a.1.C.1 and any nonproductive areas excluded from collection under part 7.5.a.1.C.2.

7.10.e. The owner or operator shall keep up-to-date, readily accessible records of the following, except as provided in paragraph 7.9.d.2, for a minimum of five years:

7.10.e.1. All collection and control system exceedances of the operational standards in subdivision 7.5.b, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance;

7.10.e.2. Each wellhead temperature monitoring value of 55 degrees Celsius (131 degrees Fahrenheit) or above, each wellhead nitrogen level at or above 20%, and each wellhead oxygen level at or above five percent;

7.10.e.3. The root cause analysis conducted, including a description of the recommended corrective action(s) taken and the date(s) the corrective action(s) were completed, for which corrective actions are required by paragraphs 7.7.a.3 or 7.7.a.4;

7.10.e.4. The root cause analysis conducted, the corrective action analysis, the date for corrective action(s) already completed following the positive pressure reading or high temperature reading, and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates, for which corrective actions are required by subparagraphs 7.7.a.3.B or 7.7.a.4.B; and

7.10.e.5. The root cause analysis conducted, the corrective action analysis, the date for corrective action(s) already completed following the positive pressure reading or high temperature reading, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates, and a copy of any comments or final approval on the corrective action analysis or schedule from the Secretary for any root cause analysis for which corrective actions are required by subparagraphs 7.7.a.3.C or 7.7.4.C.

7.10.f. Landfill owners or operators who convert design capacity from volume to mass or mass to volume to demonstrate that the landfill design capacity is less than 2.5 million megagrams or 2.5 million cubic meters shall keep readily accessible, on-site records of the annual recalculation of site specific density, design capacity, and the supporting documentation. The owner or operator may maintain records off site if they are retrievable within four hours. Either paper copy or electronic formats are acceptable.

7.10.g. To demonstrate that site-specific surface methane emissions are below 500 ppm by conducting surface emission monitoring under the Tier 4 procedures specified in paragraph 7.6.a.11, the owner or operator shall keep for a minimum of five years up-to-date, readily accessible records of all surface emissions monitoring and information related to monitoring instrument calibrations conducted per Sections 8 and 10 of 40 CFR Part 60, Appendix A and 45CSR16 including all of the following items:

7.10.g.1. Calibration records:

7.10.g.1.A. Date of calibration and initials of operator performing the calibration;

7.10.g.1.B. Calibration gas cylinder identification, certification date, and certified concentration;

7.10.g.1.C. Instrument scale(s) used;

7.10.g.1.D. A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value; and

7.10.g.1.E. If the owner or operator makes its own calibration gas, a description of the procedure used.

7.10.g.2. Digital photographs of the instrument setup. -- For the duration of the Tier 4 monitoring demonstration, the owner or operator shall take time and date stamped digital photographs prior to sampling at the first sampling location and at the last sampling location after sampling at the end of each sampling day;

7.10.g.3. Time stamp of each surface scan reading:

7.10.g.3.A. The time stamp should be detailed to the nearest second, based on when the sample collection begins; and

7.10.g.3.B. A log for the length of time each sample was taken using a stopwatch (e.g., the time the probe was held over the area).

7.10.g.4. Location of each surface scan reading. – The owner or operator shall determine the coordinates using an instrument with an accuracy of at least four meters, which coordinates shall be in decimal degrees with at least five decimal places;

7.10.g.5. Monitored methane concentration (ppm) of each reading;

7.10.g.6. Background methane concentration (ppm) after each instrument calibration test;

7.10.g.7. Adjusted methane concentration using most recent calibration (ppm);

7.10.g.8. For readings taken at each surface penetration, the unique identification location label matching the label specified in subdivision 7.10.d; and

7.10.g.9. Records of the operating hours of the gas collection system for each destruction device.

7.10.h. The owner or operator shall keep up-to-date, readily accessible records of all collection and control system monitoring data for parameters measured in paragraphs 7.8.a.1, 7.8.a.2, and 7.8.a.3 for a minimum of five years, except as provided in paragraph 7.9.d.2.

7.10.i. The owner or operator may maintain in electronic format any documents required to be maintained by section 7 that it submitted electronically via EPA's CDX.

7.10.j. If the owner or operator reports leachate or other liquids addition under subdivision 7.9.l, the owner or operator shall keep records of any engineering calculations or company records used to estimate the quantities of leachate or liquids added, the surface areas for which the leachate or liquids were applied, and the estimates of annual waste acceptance or total waste in place in the areas where the owner or operator applied leachate or liquids.

§45-23-8. Secretary.

8.1. All references in 40 CFR Part 60 Subparts Cf and XXX to the "Administrator" are amended to be the "Secretary" except in the following references, which shall remain "Administrator":

8.1.a. Where the Federal Regulations specifically provide that the Administrator shall retain authority and not transfer such authority to the Secretary;

8.1.b. Where provisions occur which refer to:

8.1.b.1. Alternate means of emission limitations;

8.1.b.2. Alternate control technologies;

8.1.b.3. Innovative technology waivers;

8.1.b.4. Alternate test methods;

8.1.b.5. Alternate monitoring methods;

8.1.b.6. Waivers/adjustments to recordkeeping and reporting;

8.1.b.7. Applicability determinations; or

8.1.b.8. The requirements of 40 CFR § 60.764(a)(5) to approve other methods to determine the NMOC concentration or a site specific methane generation rate constant as an alternative to the methods required by 40 CFR § 60.764(a)(3) and (4); and

8.1.c. Where the context of the regulation clearly requires otherwise.

§45-23-9. Inconsistency Between Rules.

9.1. In the event of any inconsistency between this rule and any other rule of the Division of Air Quality, the inconsistency shall be resolved by the determination of the Secretary, and the determination shall be based upon the application of the more stringent provision, term, condition, method or rule.

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west virginia department of environmental protection

West Virginia
State Plan Revision for
MUNICIPAL SOLID WASTE LANDFILLS

DRAFT

West Virginia Division of Air Quality
601 57th Street, SE
Charleston, WV 25304

Promoting a healthy environment.

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Acronyms, Abbreviations, and Symbols{tc "Acronyms and Abbreviations"}

CAA	Clean Air Act
C.F.R.	Code of Federal Regulations
C.S.R.	Code of State Rules
DAQ	Division of Air Quality
DEP	Department of Environmental Protection
EG	Emission Guidelines
EPA	Environmental Protection Agency
FR	Federal Register
GCCS	Gas Collection and Control System
LFG	Landfill Gas
M^3	Cubic Meters
Mg/Yr	Megagrams per Year
MSW	Municipal Solid Waste
NMOC	Non-Methane Organic Compounds
NSPS	New Source Performance Standard
ppb	Parts per Billion
ppm	Parts per Million
U.S.	United States
WV	West Virginia
>	Greater Than
≥	Greater Than or Equal To
$x\ 10^6$	Million

{tc "Acronyms and Abbreviations"}

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West Virginia State Plan Revision for Municipal Solid Waste Landfills

1.0. Executive Summary

On August 29, 2016, the Environmental Protection Agency (EPA) published *Standards of Performance for Municipal Solid Waste Landfills,* under section (111)(b) of the Clean Air Act, as amended (CAA) and *Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills* under section (111)(d) of the CAA. The EPA established a new subpart (40 C.F.R. 60, Subpart XXX) that updated the Standards of Performance for Municipal Solid Waste (MSW) Landfills following its review of this source category rather than updating the existing subpart (40 C.F.R. 60, Subpart WWW). The requirements under 40 C.F.R. 60, Subpart XXX apply to any MSW landfill for which construction, reconstruction, or modification commenced after July 17, 2014. The EPA likewise established a new subpart when it revised the Emission Guidelines (EGs), 40 C.F.R. 60, Subpart Cf. The EPA established EGs and compliance times for the control of designated pollutants from designated MWS landfills that commenced construction, modification, or reconstruction on or before July 17, 2014 under 40 C.F.R. 60, Subpart Cf.

States with one or more existing MSW landfills that commenced construction, modification, or reconstruction on or before July 17, 2014, are required to submit a State Plan to the EPA that implements the EGs under 40 C.F.R. Part 60, Subpart Cf and per the requirements of 40 C.F.R. Part 60, Subpart B.

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West Virginia is herein submitting a revision to its CAA §111(d) state plan for MSW landfills last approved by the EPA in 66 Fed. Reg. 28375, May 23, 2001. The revised plan addresses the EPA's August 29, 2016 final rule "Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills" [81 Fed. Reg. 59276, August 29, 2016].

West Virginia legislative rule, 45 C.S.R. 23 - *Control of Air Pollution from Municipal Solid Waste Landfills*, incorporates by reference the MSW landfill requirements for new sources and implements the EGs and compliance times for existing sources pursuant to CAA § 111(d) to control MSW landfill air emissions, including nonmethane organic compounds (NMOC) and methane from the following facilities: (a) MSW landfills previously subject to the EGs and compliance times under 40 C.F.R. 60, Subpart Cc; (b) MSW landfills previously subject to the new source performance standards (NSPS) under 40 C.F.R. 60, Subpart WWW; (c) MSW landfills that commenced construction, reconstruction, or modification on or before July 17, 2014 and subject to the EGs and compliance times promulgated by the EPA under 40 C.F.R. 60, Subpart Cf; and (d) MSW landfills that commenced construction, reconstruction or modification after July 17, 2014 and subject to the NSPS under 40 C.F.R. 60, Subpart XXX. West Virginia legislative rule 45 C.S.R. 23 became effective on June 1, 2018 and is included as Appendix A of this plan.

The revised WV state plan submitted herein (the plan), is based on revisions to 45 C.S.R. 23 effective June 1, 2018 and adheres to the requirements for state plans provided under 40 C.F.R. 60, Subpart B, *Adoption and Submittal of State Plans for Designated Facilities*, and 40 C.F.R. 60, Subpart Cf, *Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills*. West Virginia is also herein providing notice to the EPA that 45 C.S.R. 23, effective June 1, 2018,

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codified the incorporation by reference the NSPS under 40 C.F.R. Part 60, Subpart XXX, as of June 1, 2017.

2.0. Request

WV has one or more existing MSW landfill that commenced construction, modification, or reconstruction on or before July 17, 2014 and therefore, is herein submitting a revision to its state plan and implementing the EGs of 40 C.F.R. 60, Subpart Cf, *Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills,* as required by 40 C.F.R. 60 § 60.30f(a).

WV legislative rule, 45 C.S.R. 23 *Control of Air Pollution from Municipal Solid Waste Landfills,* establishes and adopts the EGs and compliance times of 40 C.F.R. 60, Subpart Cf. The owner or operator of an MSW landfill must comply with all applicable standards of performance, requirements, and provisions of 40 C.F.R. 60, Subpart Cf as set forth in section 7 of 45 C.S.R. 23, including any reference methods, performance specifications, and other test methods.

WV Department of Environmental Protection (DEP) is requesting that the EPA approve the *West Virginia State Plan Revision for Municipal Solid Waste Landfills* submitted in accordance with 40 C.F.R. § 60.30f(a). The plan implements the EGs of 40 C.F.R. 60, Subpart Cf, *Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills,* under 45 C.S.R. 23 and fulfills the state's obligations under § 111(d)(1) of the CAA.

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3.0. Background

The WV DEP last submitted a CAA § 111(d) MSW landfill plan to the EPA on May 29, 1998 with amendments dated May 15, 2000 and December 20, 2000. The EPA approved the WV plan that established emission limits for existing MSW landfills and provided for the implementation and enforcement of those limits [66 Fed. Reg. 28375, May 23, 2001].

Section 111 of the CAA requires the EPA to review and, if appropriate, revise standards of performance for new sources at least every eight years. On August 29, 2016, the EPA published the *Standards of Performance for Municipal Solid Waste Landfills*. To avoid possible confusion regarding which MSW landfills would be subject to the revised requirements, the EPA established a new subpart (40 C.F.R. 60, Subpart XXX) rather than updating the previous subpart (40 C.F.R. 60, Subpart WWW). The requirements in 40 C.F.R. 60, Subpart XXX apply to MSW landfills for which construction, reconstruction, or modification commenced after July 17, 2014.

Based on its review of the MSW landfill category, the EPA also decided to revise the EGs for existing sources that were last promulgated on March 12, 1996, as amended on June 16, 1998, February 24, 1999, and April 10, 2000. The EPA published 40 C.F.R. 60, Subpart Cf, *Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills,* on August 26, 2016. A summary of significant revisions follow. The EGs retained the design capacity thresholds of 2.5 million megagrams (Mg) and 2.5 million cubic meters (m^3) but reduced the nonmethane organic compounds (NMOC) emission threshold for the installation and removal of a gas collection and control system (GCCS) from 50 Mg/yr to 34 Mg/yr for MSW landfills that were not closed by September 27, 2017. The EPA added an alternative site-specific emission threshold determination

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methodology, referred to as "Tier 4" based on surface emissions monitoring, to specify the conditions under which an MSW landfill must install and operate a GCCS. The EPA also finalized a closed landfill subcategory for MSW landfills that closed on or before September 27, 2017. The EPA provided criteria to determine when it is appropriate to cap or remove all or a portion of the GCCS. The EPA addressed issues relating to MSW landfill gas treatment. The EPA revised wellhead operational standards and surface monitoring requirements. The standards in the EGs apply at all times, including periods of startup, shutdown, and malfunction

4.0. State Plan Requirements

WV legislative rule 45 C.S.R. 23 adopted the EGs provided in 40 C.F.R. 60, Subpart Cf. Provided below is a demonstration that the state plan satisfies the requirements for an MSW landfill state plan submittal in accordance with 40 C.F.R. 60, Subpart B and 40 C.F.R. 60, Subpart Cf.

4.1. Source Inventory

Subpart B [40 C.F.R. § 60.25(a)]

The plan shall include an inventory of all designated facilities.

Subpart Cf - Designated Facilities [40 C.F.R. § 60.31f]

A designated facility is each existing MSW landfill for which construction, reconstruction, or modification was commenced on or before July 17, 2014. Physical or operational changes made to an existing MSW landfill solely to comply with an EG are not considered a modification or

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reconstruction; and therefore, would not cause an existing MSW landfill to be subject to the NSPS requirements for new MSW landfills.

WV Plan

Section 4 of 45 C.S.R. 23 provides the requirements for MSW landfills constructed, modified, or reconstructed on or after May 30, 1991 and before July 17, 2014. The following designated facilities are subject to the requirements for existing MSW landfills under section 7 of 45 C.S.R. 23:

- Each MSW landfill that commenced construction on or after May 30, 1991 and before July 17, 2014; or
- Each MSW landfill that commenced reconstruction or modification on or after May 30, 1991 and before July 17, 2014; and
- Each MSW landfill that was previously subject to 40 C.F.R. part 60, subpart WWW.

Section 6 of 45 C.S.R. 23 provides the requirements for MSW landfills constructed, modified, or reconstructed before May 30, 1991. The following designated facilities are subject to the requirements for existing MSW landfills under section 7 of 45 C.S.R. 23:

- Each MSW landfill that commenced construction before May 30, 1991; or
- Each MSW landfill that commenced reconstruction or modification before May 30, 1991; and
- Each MSW landfill that was previously subject to 40 C.F.R. part 60, subpart Cc.

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45 C.S.R. 23 § 7.2 specifies the applicability requirements as adopted from 40 C.F.R. § 60.31f.

The WV source inventory for existing and new sources is provided in the tables below and includes active existing MSW landfills and existing MSW landfills in the closed landfill subcategory that closed on or before September 27, 2017. If there is an existing or new MSW landfill located in WV and not identified below, the owner or operator would be subject to the requirements of 45 C.S.R. 23 and this plan.

Active MSW Landfill Source Inventory (Existing and New Sources)		
Facility Name	**Facility ID#**	**Mailing Address**
Brooke/Velero	009-00053	Rt. 2, Box 410, Collier, WV 26035
Charleston Landfill	039-00461	P.O. Box 4514 Charleston, WV 25364
Capels Landfill aka McDowell County Landfill aka Copper Ridge Landfill	047-00111	36 Elkhorn St. Welch, WV 24801
Disposal Service, Inc.	079-00103	P.O. Box 4514 Charleston, WV 25364
Greenbrier County	025-00062	P.O. Box 1664 Lewisburg, WV 24901
HAM Sanitary Landfill LLC	063-00007	P.O. Box 576 Peterstown, WV 24963
Meadowfill	033-00128	1488 Dawson Dr., Suite 101 Bridgeport, WV 26330
Mercer County Landfill	055-00100	749 Frontage Road Princeton, WV 24740
Nicholas County Landfill	067-00098	P.O. Box 59 Calvin, WV 26660
L.C.S. Services aka North Mountain	003-00036	P.O. Box 1070 Hedgesville, WV 25427
Northwestern Landfill	107-00121	510 East Dry Run Road Parkersburg, WV 26104

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Pocahontas County	075-00022	900 10th Avenue Marlington, WV 24954
Raleigh County	081-00155	200 Fernandez Drive Beckley, WV 25801

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Active MSW Landfill Source Inventory (Existing and New Sources)		
Facility Name	**Facility ID#**	**Mailing Address**
S&S Landfill	033-00129	4439 Good Hope Pike Clarksburg, WV 26301
Short Creek Landfill aka Northfork Landfill	069-00071	258 North Fork Road Wheeling, WV 26003
Sycamore Landfill	079-00105	4301 Sycamore Ridge Road Hurricane, WV 25526
Tucker County Landfill	093-00017	P.O. Box 445 Davis, WV 26260
Wetzel County Landfill	103-0034	Rt. 1 Box 156A New Martinsville, WV 26155

MSW Closed Landfill Source Inventory		
Facility Name	**Facility ID#**	**Mailing Address**
Webster County Landfill	101-0031	1350 Excelsior Road Webster Springs, WV 26288

4.2. Emissions Inventory

Subpart B [40 C.F.R. § 60.25(a)]

The plan shall include emissions data for the designated pollutants and information related to the emissions as specified in 40 C.F.R. 60, Appendix D. Data must be summarized, and the emission rates of designated pollutants must be correlated with applicable emission standards.

WV Plan

The tables below provide the NMOC emission rates for each active MSW landfill and for each MSW landfill in the closed landfill subcategory for MSW landfills that closed on or before September 27, 2017. MSW landfills in this subcategory continue to be subject to an NMOC emission threshold of 50 Mg/yr for determining when controls must be installed or can be removed.

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Active MSW Landfill Emissions Inventory Table				
Facility Name	**Is the Design Capacity >2.5 x 10^6 Mg?**	**NMOC Emission Rate (Mg/yr)**	**Is the facility NMOC emission rate > 34 Mg/yr?**	**Is the facility subject to Subpart Cf or XXX?**
Brooke Valero	Yes	338.40[a]	Yes	XXX
Charleston Landfill	Yes	4.5[a]	No	XXX
Capels Landfill aka McDowell County Landfill aka Copper Ridge Landfill	Yes	5.82[a]	No	Cf
Disposal Service, Inc.	Yes	6.54[a]	No	XXX
Greenbrier County	No	NA	No	Cf
H.A.M. Sanitary Landfill LLC	No	NA	NA	XXX
Meadowfill	Yes	10.10[a]	No	XXX
Mercer County Landfill	Yes	2.90[a]	No	XXX
Nicholas County Landfill	No	NA	NA	Cf
L.C.S. Services aka North Mountain	Yes	2.3[a]	No	XXX
Northwestern Landfill	Yes	10.52[a]	No	XXX
Pocahontas County	No	NA	NA	Cf
Raleigh County	Yes	25.06[a]	No	Cf
S&S Landfill	Yes	4.03[a]	No	XXX
Short Creek Landfill aka Northfork Landfill	Yes	608.3[a]	Yes	XXX
Sycamore Landfill	Yes	36.5[b]	Yes	Cf
Tucker County Landfill	Yes	3.37[a]	No	XXX
Wetzel County Landfill	Yes	64.04[a]	Yes	XXX

[a] Values are based on 2017 NMOC emission rate data submitted by each facility.
[b] Value is based on 5-year projected estimate submitted in 2016.

Closed MSW Landfill Subcategory Emissions Inventory Table				
Facility Name	**Is the Design Capacity >2.5 x 10^6 Mg?**	**NMOC Emission Rate (Mg/yr)**	**Is the facility NMOC emission rate > 50 Mg/yr?**	**Is the facility subject to Subpart Cf or XXX?**

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Webster County Landfill	No	NA	NA	Cf

4.3. Compliance Schedules and Increments of Progress

Subpart B [40 C.F.R. §§ 60.24(a) and (e)]

Each plan shall include compliance schedules. 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.

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.

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; (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.

Subpart Cf - Compliance Times [40 C.F.R. § 60.32f]

Planning, awarding of contracts, installing, and starting up MSW landfill air emission collection and control equipment must be completed within 30 months after the date the NMOC emission

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rate report shows NMOC emissions are equal to or exceed 34 Mg/yr (50 Mg/yr for the MSW closed landfill subcategory); or within 30 months after the date of the most recent NMOC emission rate report shows the NMOC emissions are equal to or exceed 34 Mg/yr (50 Mg/yr for the MSW closed landfill subcategory), if Tier 4 surface emissions monitoring shows a surface emission concentration of 500 ppm methane or greater.

WV Plan

Section 7.3 of 45 C.S.R. 23 establishes requirements for compliance times. The owner or operator is required to install and start up air emission collection and control equipment capable of meeting the requirements provided in 45 C.S.R. 23 § 7.4 by the compliance times in the table below.

Compliance Times for Existing Facilities Subject to 40 C.F.R. 60, Subpart Cf set forth in Section 7 of 45 C.S.R. 23		
Category of Sources	**Requirement**	**Compliance Date**
Each active MSW landfill required by §45-23-7.4 to install a GCCS	Install and start-up air emissions collection and control equipment capable of meeting requirements of 45CSR23 § 7.	30 months after NMOC emission rate report showed NMOC emissions ≥ 34 Mg/yr; OR 30 months after the most recent NMOC emission rate report shows NMOC emissions are ≥ 34 Mg/yr, if Tier 4 surface emissions monitoring shows a surface emission concentration ≥ 500 ppm methane
Each MSW landfill in the closed landfill subcategory required by §45-23-7.4 to install a GCCS	Install and start-up air emissions collection and control equipment capable of meeting requirements of 45CSR23 § 7.	30 months after the most recent NMOC emission rate report shows NMOC emissions are ≥ 50 Mg/yr; OR 30 months after the most recent NMOC emission rate report shows NMOC emissions are ≥ 50 Mg/yr for the closed MSW landfill subcategory, if Tier 4 surface emissions monitoring shows a

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		surface emission concentration ≥ 500 ppm methane

The table below provides the increments of progress to achieve compliance for each designated facility or category of facilities that is required to install and start-up air emission collection and control equipment capable of meeting the requirements of 45 C.S.R. 23 § 7.4.

Facility Name or Category of Sources	**Increment of Progress**	**Compliance Date**
Any MSW landfill subject to Subpart Cf	Submit an initial design capacity report per §45-23-7.9.a.	June 1, 2019
Any MSW landfill subject to Subpart Cf with a design capacity ≥ 2.5 x 10^6 Mg and 2.5 x 10^6 m^3	Submit an initial NMOC emission rate report per §45-23-7.9.c.	June 1, 2019
Any active MSW landfill subject to Subpart Cf with a design capacity ≥ 2.5 x 10^6 Mg and 2.5 x 10^6 m^3	Prepare and submit to the Secretary a GCCS design plan, approved by a professional engineer that meets §45-23-7.9.d .	One year after the first NMOC emission rate report in which the NMOC emission rate ≥ 34 Mg/yr
Any closed MSW landfill subcategory subject to Subpart Cf with a design capacity ≥ 2.5 x 10^6 Mg and 2.5 x 10^6 m^3	Prepare and submit to the Secretary a GCCS design plan, approved by a professional engineer that meets §45-23-7.9.d .	One year after the first NMOC emission rate report where the NMOC emission rate ≥ 50 Mg/yr
Each active MSW landfill required to install a GCCS under §45-23-7.4	Plan, award contracts, install, and start-up air emission collection and control equipment capable of meeting requirements of 45CSR23 § 7.	30 months after NMOC emission rate report showed NMOC emissions ≥ 34 Mg/yr; OR 30 months after the most recent NMOC emission rate report shows NMOC emissions are ≥ 34 Mg/yr, if Tier 4 surface emissions monitoring shows a surface emission concentration ≥ 500 ppm methane

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Facility Name or Category of Sources	Increment of Progress	Compliance Date
Each MSW landfill in the closed landfill subcategory required to install a GCCS under §45-23-7.4	Plan, award contracts, install, and start-up air emission collection and control equipment capable of meeting requirements of §45-23-7.	30 months after the most recent NMOC emission rate report shows NMOC emissions are ≥ 50 Mg/yr; OR 30 months after the most recent NMOC emission rate report shows NMOC emissions are ≥ 50 Mg/yr for the closed MSW landfill subcategory, if Tier 4 surface emissions monitoring shows a surface emission concentration ≥ 500 ppm methane

The compliance schedule requirements under 45 C.S.R. 23 §7.3 were adopted from the 40 C.F.R. 60, Subpart Cf emission guidelines and therefore, meet the state plan and EG requirements of 40 C.F.R. 60, Subparts B and Cf.

4.4. Emission Standards and Operational Standards

4.4.a. Emission Standards

Subpart B [40 C.F.R. § 60.24(a)]

Each plan shall include emission standards. Emission standards shall either be based on an allowance system or prescribe allowable rates of emissions except when it is clearly impracticable. Emission standards shall apply to all designated facilities within the state.

Subpart Cf - MSW Landfill Emissions [40 C.F.R. § 60.33f]

Each owner or operator of an MSW landfill having a design capacity greater than or equal to 2.5 million megagrams by mass and 2.5 million cubic meters by volume must collect and control emissions at each MSW landfill that meets the conditions of 40 C.F.R. § 60.33f(a); and either

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install a GCCS or calculate an initial NMOC emission rate. The NMOC emission rate shall be recalculated annually except as allowed.

A state plan must include provisions for the installation of a GCCS that meets the requirements in 40 C.F.R. § 60.33f(b) and for the control of the gas collected from the MSW landfill using control devices that meet the requirements in 40 C.F.R. § 60.33f(c).

Each owner or operator of an MSW landfill having a design capacity less than 2.5 million megagrams by mass and 2.5 million cubic meters by volume must submit an initial design capacity report per 40 C.F.R. § 60.38f(a).

WV Plan

The MSW landfill emission requirements are provided in 45 C.S.R. 23 § 7.4. Each owner or operator of a MSW landfill with 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 emissions at each MSW landfill that meet the conditions of §45-23-7.4.a. The collection system requirements are provided in §45-23-7.4.b; the control system requirements are provided in §45-23-7.4.c; and the emissions requirements are provided in §45-23-7.4.e. The design capacity requirements are provided in §45-23-7.4.d; each owner or operator of a MSW landfill with a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters shall either install a GCCS or calculate an initial NMOC emission rate for the landfill. The NMOC emission rate shall be recalculated annually except as allowed under §45-23-7.9.c.3.

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Each owner or operator of an MSW landfill having a design capacity less than 2.5 million megagrams by mass and 2.5 million cubic meters by volume must submit an initial design capacity report in accordance with §45-23-7.4.d. Removal criteria, adopted from 40 C.F.R. 60 § 60.33f(f), provided in section 7.4.f of 45 C.S.R. 23.

4.4.b. Operational Standards

Subpart Cf - Operational Standards for Collection and Control Systems [40 C.F.R. § 60.34f] and Specifications for Active Collection Systems [40 C.F.R. § 60.40f]

A state plan must include provisions for operational standards for an MSW landfill with a GCCS and specifications for active collection systems.

WV Plan

Specifications for active collection systems are provided in §45-23-7.5.a. The owner or operator shall site active collection wells, horizontal collectors, surface collectors or other extraction devices at a sufficient density throughout all gas producing areas using the procedures provided in §45-23-7.5.a.

Operational standards for GCCSs are provided in §45-23-7.5.b. Each owner or operator of an MSW landfill with a GCCS used to comply with sections 7.4.b and 7.4.c of 45 C.S.R. 23 must meet the operational standard requirements provided in §45-23-7.5.b.

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The emissions and operational standards requirements of 45 C.S.R. 23 were adopted from the 40 C.F.R. 60, Subpart Cf emission guidelines and therefore, meet the state plan and EG requirements of 40 C.F.R. 60, Subparts B and Cf.

4.5. Performance Testing, Monitoring, Recordkeeping, and Reporting

4.5.a. Compliance and Performance Testing

Subpart B [40 C.F.R. § 60.24(b)(2)]

Test methods and procedures for determining compliance with the emission standards shall be specified in the state plan.

Subpart Cf - Test Methods and Procedures and Compliance Provisions [40 C.F.R. §§ 60.35f and 60.36f]

A state plan must include the 40 C.F.R. § 60.35f provisions to calculate the MSW landfill NMOC emission rate or to conduct a surface emission monitoring demonstration and the 40 C.F.R. § 60.36f compliance provisions.

WV Plan

Testing requirements provided in §45-23-7.6 include NMOC emission rate calculation requirements and surface emission monitoring demonstration requirements.

Compliance requirements are provided in §§45-23-7.7 and 7.2.e. The requirements for existing MSW landfills apply at all times, including periods of startup, shutdown or malfunction. During

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periods of startup, shutdown or malfunction, the owner or operator shall comply with the work practice specified in 7.5.b.5 in lieu of compliance with the provisions in section 7.7.

The compliance and performance testing requirements of 45 C.S.R. 23 were adopted from the 40 C.F.R. 60, Subpart Cf emission guidelines and therefore, meet the state plan and EG requirements of 40 C.F.R. 60, Subparts B and Cf.

4.5.b. Monitoring

Subpart B [§ 60.25(b)]

Each plan shall provide for monitoring the compliance status with applicable emission standards.

Subpart Cf - Monitoring of Operations [§60.37f]

A state plan must include the monitoring provisions under 40 C.F.R. §60.37f, except as provided in § 60.38f(d)(2).

WV Plan

The monitoring requirements were adopted from the 40 C.F.R. 60, Subpart Cf emission guidelines and are provided in §45-23-7.8.

The monitoring requirements of 45 C.S.R. 23 meet the state plan and EG requirements of 40 C.F.R. 60, Subparts B and Cf.

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4.5.c. Recordkeeping and Reporting

Subpart B [§§ 60.25 (b) and (c)]

Each plan shall, as a minimum, provide for legally enforceable procedures 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. Each plan shall, as a minimum, provide for periodic inspection and, when applicable, testing of designated facilities.

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

Subpart Cf - Recordkeeping and Reporting Guidelines [§§ 60.39f and 60.38f]

A state plan must include the 40 C.F.R. § 60.39f recordkeeping guidelines and the 40 C.F.R. § 60.38f reporting guidelines.

WV Plan

Recordkeeping and reporting requirements are established in §45-23-7.10 and §45-23-7.9, respectively, and are adopted from the EGs. Reporting requirements include the following: (a) Design capacity report; (b) Amended design capacity report; (c) NMOC emission rate report; (d) GCCS design plan; (e) Revised design plan; (f) Closure report; (g) Equipment removal report; (h) Annual report; (i) Initial performance test report; (j) Electronic reporting; (k) Corrective action and the corresponding timeline; (l) Liquids addition; and (m) Tier 4 notification.

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45 C.S.R. 23 § 7.2.c specifies conditions requiring an owner or operator to obtain a Title V operating permit. The WV Title V operating program is codified under 45 C.S.R. 30 and was last approved by the EPA at 81 Fed. Reg. 7463, March 14, 2016.

Other sections of the state plan provide additional information requested by Subpart B. Please refer to the following sections of this plan:

- 4.5.a for information regarding compliance and performance testing;
- 4.5.b for information regarding monitoring;
- 4.6 for information regarding public participation;
- 4.8 for information regarding enforceable state mechanisms for implementation; and
- 4.9 for information regarding legal authority

The recordkeeping and reporting requirements of 45 C.S.R. 23 were adopted from the 40 C.F.R. 60, Subpart Cf emission guidelines and therefore, meet the state plan and EG requirements of 40 C.F.R. 60, Subparts B and Cf.

4.6. Public Participation

Subpart B [40 C.F.R. §§ 60.23(c) - (f)]

The state is required to conduct one or more public hearings on the plan revision. The state plan must include certification that the hearing for the state plan was held in accordance with § 60.23(d), 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. Notice of the hearing shall be given

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at least 30 days prior to the hearing date and shall include the information required under § 60.23(d). The state shall prepare and retain, for a minimum of two years, a record of each hearing for inspection by any interested party. The record, at a minimum, shall contain a list of witnesses together with the text of each presentation. Certification that each hearing was held in accordance with 40 C.F.R. § 60.23(c) with the notice required by § 60.23(d) must be submitted with each state plan revision along with the list of witnesses and their organizational affiliations appearing at the hearing and a brief written summary of each presentation or written submission.

WV Plan

Prior to submitting this plan revision, the DEP allowed opportunity for public comment, held a public hearing on the plan, and provided notification to the EPA in a letter to Christina Fernandez dated XXX. The notice of the public hearing was published on XXX, 2018 as a Class 1 legal advertisement in the Charleston Newspapers and was published on XXX, 2018 in the WV State Register, providing at least 30-day notice prior to the hearing. The public hearing was held on XXX at 601 57th Street, SE, Charleston, WV at 5:30 p.m.

The DEP certified in the transmittal letter that the public hearing was held in accordance with 40 C.F.R. § 60.23(d). Records of the hearing will be maintained in accordance with 40 C.F.R. § 60.23(e) and will be maintained for at least two years.

As required under 40 C.F.R. § 60.23(f), notices of the public hearing, the hearing sign-in sheet of attendees including their organizational affiliations, the transcript from the public hearing, the public comment received during the notice period and the response to comment document, are included in Appendix D of this plan.

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The public participation requirements for this state plan revision meet the state plan requirements of 40 C.F.R. 60, Subparts B.

4.7. Progress Reports

Subpart B [§§ 60.25 (e and f)]

The state is required to submit progress reports in plan enforcement to the EPA on an annual basis. The annual progress report must include the following information:

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 40 C.F.R. § 60.25(a) 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 40 C.F.R. § 60.25(a) or in previous progress reports.
6. Submission of copies of technical reports on all performance testing on designated facilities conducted under 40 C.F.R. § 60.25(b)(2), complete with concurrently recorded process data.

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WV Plan

The WV DEP, DAQ last submitted the § 111(d) plan Annual Progress Report for Existing Municipal Solid Waste Landfills to Mr. Cosmo Servidio, EPA Region 3, on July X, 2018 in accordance with the requirements of 40 C.F.R. §§ 60.25(e) and (f). WV DEP remains committed to submitting the progress plan enforcement reports to the EPA on an annual basis.

WV has fulfilled the progress report requirements of 40 C.F.R. 60, Subparts B.

4.8. Identification of Enforceable State Mechanisms for Implementation

Provided herein are the enforceable mechanisms WV selected to implement the new source performance standards of 40 C.F.R. 60, Subpart XXX, *Standards of Performance for Municipal Solid Waste Landfills that Commenced Construction, Reconstruction, or Modification after July 17, 2014,* and the EGs of 40 C.F.R. 60, Subpart Cf, *Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills.*

4.8.a. Implementation of New Source Performance Standards

Subpart XXX

40 C.F.R. § 60.760 specifies test methods and procedures authorities provided under 40 C.F.R. § 60.764(a)(5) are retained by the EPA and are not transferred to the State.

WV Plan

45 C.S.R. 23, *Control of Air Pollution from Municipal Solid Waste Landfills,* was promulgated by the WV DEP following the passage of Senate Bill 163 in the WV 2018 legislative session, with

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signature by the Governor on February 27, 2018. Legislative rule 45 C.S.R. 23 became effective June 1, 2018 and is included as Appendix A to this plan.

The Secretary adopted and incorporated by reference 40 C.F.R. 60, Subpart XXX including any applicable reference methods, performance specifications, and other test methods, appended to the standard and contained in the subpart as of June 1, 2017 in section 3.1 of 45 C.S.R. 23. The authority for 40 C.F.R. § 60.764(a)(5) is retained by the EPA, as stated in paragraph §45-23-8.1.b.8.

§45-23-5 requires owners or operators of a new MSW landfill to comply with all applicable standards of performance, requirements, and provisions of 40 C.F.R. 60 Subpart XXX, including any reference methods, performance specifications and other test methods associated with Subpart XXX. No person shall construct or operate a new MSW landfill that results in a violation of 40 C.F.R. 60, Subpart XXX or 45 C.S.R. 23.

4.8.b. Implementation of Emission Guidelines for Existing MSW Landfills

Subpart Cf [40 C.F.R. § 60.30f]

If you are the Administrator of an air quality program with one or more existing MSW landfills, a state plan must be submitted that implements the EGs of 40 C.F.R. 60, Subpart Cf. The authority to approve alternative methods to determine the NMOC concentration or a site-specific methane generation rate constant (k) will not be delegated to the state.

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WV Plan

45 C.S.R. 23 was promulgated by the WV DEP following the passage of Senate Bill 163 during the WV 2018 legislative session, with signature by the Governor on February 27, 2018. Legislative rule 45 C.S.R. 23 became effective June 1, 2018 and is included as Appendix A to this plan. As stated in §45-23-8.1.b.8, the authority for 40 C.F.R. § 60.764(a)(5) to approve other methods to determine the NMOC concentration or a site specific methane generation rate constant as an alternative to the methods under 40 C.F.R. § 60.764(a)(3) and (4) is retained by the EPA.

45 C.S.R. 23 adopts the EGs and compliance times for MSW landfills in 40 C.F.R. 60, Subpart Cf. 45 C.S.R. 23 § 7.1 requires the owner or operator of an existing MSW landfill to comply with the applicable compliance times, requirements, and provisions of 40 C.F.R. 60, Subpart Cf as set forth in §45-23-7, including any reference methods, performance specification, and other test methods. No person shall construct, reconstruct, modify, or operate, or cause to be reconstructed, modified, or operated, an existing MSW landfill that results in a violation of 45 C.S.R. 23.

The WV DEP satisfied the EG implementation requirements of 40 C.F.R. 60, Subparts B and Cf.

4.9. Legal Authority

Pursuant to 40 C.F.R. § 60.26(a), state plans must show that states have legal authority to carry out the plan including the authority to adopt emission standards and compliance schedules applicable to designated facilities and to enforce applicable laws, regulations, standards, compliance schedules and seek injunctive relief.

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The DAQ has the statutory and regulatory authority under W.Va. Code §§ 22-5-1 et seq. (see Appendix B) to adopt and enforce rules and regulations to implement the State Plan. W. Va. Code § 22-5-4(a)(4) authorizes the Director to promulgate legislative rules relating to the control of air pollution. The DAQ promulgated legislative rule 45 C.S.R. 23 with an effective date of June 1, 2018, that incorporates by reference the Municipal Solid Waste Landfills NSPS (40 C.F.R. 60, Subpart XXX). Such incorporation by reference of model legislation is a permissible means of enacting law under West Virginia law. Additionally, 45 C.S.R. 23 adopts the EGs for existing MSW landfills under 40 C.F.R. 60, Subpart Cf.

The requirements for an existing MSW landfill are provided under section 7 of 45 C.S.R. 23. The applicable emission standards and other requirements for existing facilities are established in 45 C.S.R. 23 § 7.1. The pertinent provisions from the federal regulations relating to compliance schedules for existing facilities are contained in subsection 7.3 of 45 C.S.R. 23.

State plans must also demonstrate the state has authority to obtain information necessary to determine compliance with applicable laws, regulations, standards, and compliance schedules, including authority to require recordkeeping and to make inspections and conduct tests of designated facilities.

Regarding the enforcement of applicable laws, regulations, standards, and compliance schedules, the DEP has several enforcement mechanisms available under state law, including permits, administrative orders, civil and criminal penalties, and injunctive relief, detailed below.

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The emission standards and compliance schedules included in the plan are codified at 45 C.S.R. 23. Any violation of such standards or schedules constitutes a violation of a WV rule and is subject to civil penalties of up to $10,000 for each day of violation and criminal penalties of up to $25,000 for each day of violation and/or imprisonment for up to one year in jail (W.Va. Code § 22-5-6). In addition to civil and criminal penalties, the DEP may seek injunctive relief against any person in violation of 45 C.S.R. 23 (W. Va. Code § 22-5-7).

In addition to penalties and injunctive relief, the DEP may compel compliance with 45 C.S.R. 23 through the issuance of administrative orders. Under W. Va. Code §§ 22-5-4(a)(5) and (6) and 22-5-5, the DEP may issue administrative orders including cease and desist orders and order suspending, modifying or revoking permits. Such administrative orders may be appealed to the Air Quality Board, an administrative board with quasi-judicial powers. The DEP may also collect administrative penalties from a source in violation of a rule under an administrative consent order (W. Va. Code § 22-5-4(a)(18)).

Existing facilities may also be required to obtain permits, in which case, emission standards and compliance schedules from 45 C.S.R. 23 are included as enforceable permit conditions.[1] The existing facility may be required to obtain a preconstruction permit under W. Va. Code § 22-5-11 and/or an operating permit under W. Va. Code § 22-5-12.[2] The operating permit must ensure compliance with all applicable requirements, including the emission standards and compliance

[1] Under W. Va. Code § 22-5-6, the violation of a permit is subject to the same enforcement remedies as the violation of a rule.

[2] The State's applicable preconstruction permit program rules consist of 45 C.S.R. 13 for minor sources, 45 C.S.R. 14 for major PSD sources, and 45 C.S.R. 19 for major sources located in non-attainment areas. The State's operating permit program (Title V program) is found at 45 C.S.R. 30.

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schedules required under 45 C.S.R. 23; W. Va. Code §§ 22-5-11 and 12; also see WV 45 C.S.R. 13 §§ 5.7 and 5.11 and WV 45 C.S.R. 30 Section 5 and 45 C.S.R. 30 Section 12.

In addition to the authority to adopt and enforce the applicable emission standards and compliance schedules, the DEP has authority to obtain information necessary to determine the compliance status of existing facilities, including requiring facilities to maintain compliance records, pursuant to W.Va. Code § 22-5-4(a)(14), which states:

(a) The director is authorized:

> (14) To require any and all persons who are directly or indirectly discharging air pollutants into the air to file with the director such information as the director may require in a form or manner prescribed by him or her for such purpose, including, but not limited to, location, size and height of discharge outlets, processes employed, fuels used and the nature and time periods of duration of discharges. Such information shall be filed with the director, when and in such reasonable time, and in such manner as the director may prescribe.

The DEP also has the authority to conduct inspections and tests of existing facilities pursuant to W.Va. Code § 22-5-4 (a)(6) and (9), which state:

(a) The director is authorized:

> (6) To consider complaints, subpoena witnesses, administer oaths, make investigations, and hold hearings relevant to the promulgation of rules and the entry of compliance orders hereunder; and

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> (9) To enter and inspect any property, premise, or place on or at which a source of air pollutants is located or is being constructed, installed or established at any reasonable time for the purpose of ascertaining the state of compliance with this article and rules promulgated under the provisions of this article. No person shall refuse entry or access to any authorized representative of the director who requests entry for purposes of inspection, and who presents appropriate credentials; nor shall any person obstruct, hamper or interfere with any such inspection: Provided, that nothing contained in this article eliminates any obligation to follow any process that may be required by law.

An additional authority which must be demonstrated in the plan is the agency's authority to require the use of monitors and require emission reports of existing facilities. This authority exists in W.Va. Code § 22-5-4 (a)(15), which states:

> (15) To require the owner or operator of any stationary source discharging air pollutants to install such monitoring equipment or devices as the director may prescribe and to submit periodic reports on the nature and amount of such discharges to the director.

In addition to the general statutory authority discussed above, the DEP has specific regulatory authority under 45 C.S.R. 23 to require existing facilities to comply with requirements related to: emissions; gas collection and control systems; testing; compliance; monitoring; recordkeeping; and reporting, and in accordance with the applicable provisions of 40 C.F.R. 60, Subpart Cf. Furthermore, the DEP has authority to include conditions in any administrative orders or permits

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issued to existing facilities to ensure compliance with such conditions. W.Va. Code §§ 22-5-4(a)(5), 22-5-5, 22-5-11, and 22-5-12.

Lastly, the state must have authority to make emission data from existing facilities available to the public. The DEP has such authority under W.Va. Code § 22-5-10, which states in pertinent part:

> All air quality data, emission data, permits, compliance schedules, . . . shall be available to the public, except that upon a showing satisfactory to the director . . . that records, reports, data, or information . . . would divulge methods or processes entitled to protection as trade secrets . . . the director shall consider such records. . . confidential: Provided, that such confidentiality does not apply to the types and amounts of air pollutants discharged and that such records . . . may be disclosed to other officers, employees or authorized representatives of the state or of the federal environmental protection agency . . . Provided, however, That such officers, employees or authorized representatives . . . protect such records . . . to the same degree required of the director by this section. . . .

See, 45 C.S.R. 31 § 2.4 for the definition of the term "types and amounts of pollutants discharged."

In addition to W.Va. Code § 22-5-10, the state's Freedom of Information Act requires the DEP to make records available to the public upon request, unless such records specifically fall under one of the exemptions contained in the Act (one of which is an exemption for "trade secrets"). See, W.Va. Code §§ 29B-1-1 et seq.

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In conclusion, the WV DEP possesses the requisite authority to adopt, implement, and enforce all necessary elements of the WV §§ 111(d) plan for MSW landfills, except as outlined in 40 C.F.R. §§ 60.764(a)(3), (4), and (5).

The WV DEP has satisfied the legal authority requirements of 40 C.F.R. 60, Subparts B.

5.0. Conclusion

WV has one or more existing MSW landfill that commenced construction, modification, or reconstruction on or before July 17, 2014 and herein submits this revised plan to implement the EGs of 40 C.F.R. 60, Subpart Cf, *Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills,* as required by 40 C.F.R. 60 § 60.30f(a).

WV legislative rule, 45 C.S.R. 23 *Control of Air Pollution from Municipal Solid Waste Landfills,* established and adopted the EGs and compliance times of 40 C.F.R. 60, Subpart Cf. The owner or operator of an MSW landfill located in WV must comply with all applicable standards of performance, requirements, and provisions of 40 C.F.R. 60, Subpart Cf set forth in section 7 of 45 C.S.R. 23, including any reference methods, performance specifications, and other test methods.

Having herein demonstrated that all required elements for the MSW landfills state plan submittal have been satisfied and having provided the mechanisms to implement and enforce such standards, the WV DEP respectfully requests the EPA to approve this *West Virginia State Plan Revision for Municipal Solid Waste Landfills*. The plan implements the EGs of 40 C.F.R. 60, Subpart Cf,

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Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills, under 45 C.S.R. 23 and fulfills the state's obligations under § 111(d)(1) of the CAA.

DRAFT

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Message

From: Jennings, Laura M [Laura.M.Jennings@wv.gov]
Sent: 7/17/2018 7:47:32 PM
To: Fernandez, Cristina [Fernandez.Cristina@epa.gov]
CC: Gordon, Michael [Gordon.Mike@epa.gov]; Durham, William F [William.F.Durham@wv.gov]; Richard.A.Boehm_wv.gov [Richard.A.Boehm@wv.gov]
Subject: WV Draft of Revised CAA § 111(d) State Plan for Municipal Solid Waste Landfills
Attachments: EPA_ProposalLetter_MSWL_Signed.pdf; Public Notice.pdf; MSWL_DRAFT_StatePlanRev_CombinedDocs.pdf

Dear Director Fernandez,

Enclosed is the signed transmittal letter from the DAQ Director regarding the public comment period for WV DAQ's proposed revision to the CAA § 111(d) State Plan for Municipal Solid Waste (MSW) Landfills for review and comment by the EPA. WV state rule 45 C.S.R. 23, *Control of Air Pollution from Municipal Solid Waste Landfills*, effective June 1, 2018, was revised in response to final rules published by the EPA on August 29, 2016 titled "*Standards of Performance for Municipal Solid Waste Landfills*" and "*Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills*". Enclosed also are the public notice and the proposed revision to the WV MSW Landfills State Plan. A hard copy will be sent to you and Mike Gordon via Fed Ex tomorrow.

The public comment period commences on July 20, 2018. The WV Department of Environmental Protection, Division of Air Quality will accept written comments on the proposed state plan revision until August 20, 2018. In addition, the agency will receive oral and written comments at a public hearing to be held on August 20, 2018 at 5:30 p.m. as detailed in the notice.

Please submit any written comments to the Director's attention. Feel free to contact either him, myself, or Rich Boehm if you have any questions.

Regards,

Laura M. Jennings
Technical Analyst, Planning
WV Dept. of Environmental Protection
Division of Air Quality
(304)926-0499 x 1217
Laura.M.Jennings@wv.gov

west virginia department of environmental protection

Division of Air Quality
601 57th Street, SE
Charleston, WV 25304

Austin Caperton, Cabinet Secretary
dep.wv.gov

July 17, 2018

Ms. Cristina Fernandez, Director
Air Protection Division
U.S. EPA, Region 3
1650 Arch Street (3AP00)
Philadelphia, PA 19103-2029

Re: West Virginia Revised CAA § 111(d) Plan for Municipal Solid Waste (MSW) Landfills

Dear Ms. Fernandez:

I am herein submitting the above-referenced proposed revision to the West Virginia § 111(d) Plan for review and comment by the U. S. Environmental Protection Agency (EPA). West Virginia state rule 45 C.S.R. 23, *Control of Air Pollution from Municipal Solid Waste Landfills*, effective June 1, 2018, was revised in response to final rules published by the EPA on August 29, 2016 titled "*Standards of Performance for Municipal Solid Waste Landfills*" and "*Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills*".

The public comment period commences on July 20, 2018. The WV Department of Environmental Protection, Division of Air Quality will accept written comments on the proposed state plan revision until August 20, 2018. In addition, the agency will receive oral and written comments at a public hearing to be held on August 20, 2018 at 5:30 p.m. as detailed in the notice.

Please submit any written comments to my attention at the above address, or feel free to call me with any questions regarding this matter at (304) 926-0462.

Sincerely,

William F. Durham
Director

WFD/lmj
Enclosures

cc: Rich Boehm, DAQ
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West Virginia
State Plan Revision for
MUNICIPAL SOLID WASTE LANDFILLS

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Promoting a healthy environment.

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Acronyms, Abbreviations, and Symbols

CAA	Clean Air Act
C.F.R.	Code of Federal Regulations
C.S.R.	Code of State Rules
DAQ	Division of Air Quality
DEP	Department of Environmental Protection
EG	Emission Guidelines
EPA	Environmental Protection Agency
FR	Federal Register
GCCS	Gas Collection and Control System
LFG	Landfill Gas
M^3	Cubic Meters
Mg/Yr	Megagrams per Year
MSW	Municipal Solid Waste
NMOC	Non-Methane Organic Compounds
NSPS	New Source Performance Standard
ppb	Parts per Billion
ppm	Parts per Million
U.S.	United States
WV	West Virginia
>	Greater Than
≥	Greater Than or Equal To
$x\ 10^6$	Million

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West Virginia State Plan Revision for Municipal Solid Waste Landfills

1.0. Executive Summary

On August 29, 2016, the Environmental Protection Agency (EPA) published *Standards of Performance for Municipal Solid Waste Landfills,* under section (111)(b) of the Clean Air Act, as amended (CAA) and *Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills* under section (111)(d) of the CAA. The EPA established a new subpart (40 C.F.R. 60, Subpart XXX) that updated the Standards of Performance for Municipal Solid Waste (MSW) Landfills following its review of this source category rather than updating the existing subpart (40 C.F.R. 60, Subpart WWW). The requirements under 40 C.F.R. 60, Subpart XXX apply to any MSW landfill for which construction, reconstruction, or modification commenced after July 17, 2014. The EPA likewise established a new subpart when it revised the Emission Guidelines (EGs), 40 C.F.R. 60, Subpart Cf. The EPA established EGs and compliance times for the control of designated pollutants from designated MSW landfills that commenced construction, modification, or reconstruction on or before July 17, 2014 under 40 C.F.R. 60, Subpart Cf.

States with one or more existing MSW landfills that commenced construction, modification, or reconstruction on or before July 17, 2014, are required to submit a State Plan to the EPA that implements the EGs under 40 C.F.R. Part 60, Subpart Cf and per the requirements of 40 C.F.R. Part 60, Subpart B.

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West Virginia is herein submitting a revision to its CAA §111(d) state plan for MSW landfills last approved by the EPA in 66 Fed. Reg. 28375, May 23, 2001. The revised plan addresses the EPA's August 29, 2016 final rule "Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills" [81 Fed. Reg. 59276, August 29, 2016].

West Virginia legislative rule, 45 C.S.R. 23 - *Control of Air Pollution from Municipal Solid Waste Landfills*, incorporates by reference the MSW landfill requirements for new sources and implements the EGs and compliance times for existing sources pursuant to CAA § 111(d) to control MSW landfill air emissions, including nonmethane organic compounds (NMOC) and methane from the following facilities: (a) MSW landfills previously subject to the EGs and compliance times under 40 C.F.R. 60, Subpart Cc; (b) MSW landfills previously subject to the new source performance standards (NSPS) under 40 C.F.R. 60, Subpart WWW; (c) MSW landfills that commenced construction, reconstruction, or modification on or before July 17, 2014 and subject to the EGs and compliance times promulgated by the EPA under 40 C.F.R. 60, Subpart Cf; and (d) MSW landfills that commenced construction, reconstruction or modification after July 17, 2014 and subject to the NSPS under 40 C.F.R. 60, Subpart XXX. West Virginia legislative rule 45 C.S.R. 23 became effective on June 1, 2018 and is included as Appendix A of this plan.

The revised WV state plan submitted herein (the plan), is based on revisions to 45 C.S.R. 23 effective June 1, 2018 and adheres to the requirements for state plans provided under 40 C.F.R. 60, Subpart B, *Adoption and Submittal of State Plans for Designated Facilities*, and 40 C.F.R. 60, Subpart Cf, *Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills*. West Virginia is also herein providing notice to the EPA that 45 C.S.R. 23, effective June 1, 2018,

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codified the incorporation by reference the NSPS under 40 C.F.R. Part 60, Subpart XXX, as of June 1, 2017.

2.0. Request

WV has one or more existing MSW landfill that commenced construction, modification, or reconstruction on or before July 17, 2014 and therefore, is herein submitting a revision to its state plan and implementing the EGs of 40 C.F.R. 60, Subpart Cf, *Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills,* as required by 40 C.F.R. 60 § 60.30f(a).

WV legislative rule, 45 C.S.R. 23 *Control of Air Pollution from Municipal Solid Waste Landfills,* establishes and adopts the EGs and compliance times of 40 C.F.R. 60, Subpart Cf. The owner or operator of an MSW landfill must comply with all applicable standards of performance, requirements, and provisions of 40 C.F.R. 60, Subpart Cf as set forth in section 7 of 45 C.S.R. 23, including any reference methods, performance specifications, and other test methods.

WV Department of Environmental Protection (DEP) is requesting that the EPA approve the *West Virginia State Plan Revision for Municipal Solid Waste Landfills* submitted in accordance with 40 C.F.R. § 60.30f(a). The plan implements the EGs of 40 C.F.R. 60, Subpart Cf, *Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills,* under 45 C.S.R. 23 and fulfills the state's obligations under § 111(d)(1) of the CAA.

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3.0. Background

The WV DEP last submitted a CAA § 111(d) MSW landfill plan to the EPA on May 29, 1998 with amendments dated May 15, 2000 and December 20, 2000. The EPA approved the WV plan that established emission limits for existing MSW landfills and provided for the implementation and enforcement of those limits [66 Fed. Reg. 28375, May 23, 2001].

Section 111 of the CAA requires the EPA to review and, if appropriate, revise standards of performance for new sources at least every eight years. On August 29, 2016, the EPA published the *Standards of Performance for Municipal Solid Waste Landfills*. To avoid possible confusion regarding which MSW landfills would be subject to the revised requirements, the EPA established a new subpart (40 C.F.R. 60, Subpart XXX) rather than updating the previous subpart (40 C.F.R. 60, Subpart WWW). The requirements in 40 C.F.R. 60, Subpart XXX apply to MSW landfills for which construction, reconstruction, or modification commenced after July 17, 2014.

Based on its review of the MSW landfill category, the EPA also decided to revise the EGs for existing sources that were last promulgated on March 12, 1996, as amended on June 16, 1998, February 24, 1999, and April 10, 2000. The EPA published 40 C.F.R. 60, Subpart Cf, *Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills,* on August 26, 2016. A summary of significant revisions follow. The EGs retained the design capacity thresholds of 2.5 million megagrams (Mg) and 2.5 million cubic meters (m^3) but reduced the nonmethane organic compounds (NMOC) emission threshold for the installation and removal of a gas collection and control system (GCCS) from 50 Mg/yr to 34 Mg/yr for MSW landfills that were not closed by September 27, 2017. The EPA added an alternative site-specific emission threshold determination

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methodology, referred to as "Tier 4" based on surface emissions monitoring, to specify the conditions under which an MSW landfill must install and operate a GCCS. The EPA also finalized a closed landfill subcategory for MSW landfills that closed on or before September 27, 2017. The EPA provided criteria to determine when it is appropriate to cap or remove all or a portion of the GCCS. The EPA addressed issues relating to MSW landfill gas treatment. The EPA revised wellhead operational standards and surface monitoring requirements. The standards in the EGs apply at all times, including periods of startup, shutdown, and malfunction

4.0. State Plan Requirements

WV legislative rule 45 C.S.R. 23 adopted the EGs provided in 40 C.F.R. 60, Subpart Cf. Provided below is a demonstration that the state plan satisfies the requirements for an MSW landfill state plan submittal in accordance with 40 C.F.R. 60, Subpart B and 40 C.F.R. 60, Subpart Cf.

4.1. Source Inventory

Subpart B [40 C.F.R. § 60.25(a)]

The plan shall include an inventory of all designated facilities.

Subpart Cf - Designated Facilities [40 C.F.R. § 60.31f]

A designated facility is each existing MSW landfill for which construction, reconstruction, or modification was commenced on or before July 17, 2014. Physical or operational changes made to an existing MSW landfill solely to comply with an EG are not considered a modification or reconstruction; and therefore, would not cause an existing MSW landfill to be subject to the NSPS requirements for new MSW landfills.

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Section 4 of 45 C.S.R. 23 provides the requirements for MSW landfills constructed, modified, or reconstructed on or after May 30, 1991 and before July 17, 2014. The following designated facilities are subject to the requirements for existing MSW landfills under section 7 of 45 C.S.R. 23:

- Each MSW landfill that commenced construction on or after May 30, 1991 and before July 17, 2014; or
- Each MSW landfill that commenced reconstruction or modification on or after May 30, 1991 and before July 17, 2014; and
- Each MSW landfill that was previously subject to 40 C.F.R. part 60, subpart WWW.

Section 6 of 45 C.S.R. 23 provides the requirements for MSW landfills constructed, modified, or reconstructed before May 30, 1991. The following designated facilities are subject to the requirements for existing MSW landfills under section 7 of 45 C.S.R. 23:

- Each MSW landfill that commenced construction before May 30, 1991; or
- Each MSW landfill that commenced reconstruction or modification before May 30, 1991; and
- Each MSW landfill that was previously subject to 40 C.F.R. part 60, subpart Cc.

45 C.S.R. 23 § 7.2 specifies the applicability requirements as adopted from 40 C.F.R. § 60.31f.

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The WV source inventory for existing and new sources is provided in the tables below and includes active existing MSW landfills and existing MSW landfills in the closed landfill subcategory that closed on or before September 27, 2017. If there is an existing or new MSW landfill located in WV and not identified below, the owner or operator would be subject to the requirements of 45 C.S.R. 23 and this plan.

Active MSW Landfill Source Inventory (Existing and New Sources)		
Facility Name	**Facility ID#**	**Mailing Address**
Brooke/Velero	009-00053	Rt. 2, Box 410, Collier, WV 26035
Charleston Landfill	039-00461	P.O. Box 4514 Charleston, WV 25364
Capels Landfill aka McDowell County Landfill aka Copper Ridge Landfill	047-00111	36 Elkhorn St. Welch, WV 24801
Disposal Service, Inc.	079-00103	P.O. Box 4514 Charleston, WV 25364
Greenbrier County	025-00062	P.O. Box 1664 Lewisburg, WV 24901
HAM Sanitary Landfill LLC	063-00007	P.O. Box 576 Peterstown, WV 24963
Meadowfill	033-00128	1488 Dawson Dr., Suite 101 Bridgeport, WV 26330
Mercer County Landfill	055-00100	749 Frontage Road Princeton, WV 24740
Nicholas County Landfill	067-00098	P.O. Box 59 Calvin, WV 26660
L.C.S. Services aka North Mountain	003-00036	P.O. Box 1070 Hedgesville, WV 25427
Northwestern Landfill	107-00121	510 East Dry Run Road Parkersburg, WV 26104
Pocahontas County	075-00022	900 10th Avenue Marlington, WV 24954
Raleigh County	081-00155	200 Fernandez Drive Beckley, WV 25801

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Active MSW Landfill Source Inventory (Existing and New Sources)		
Facility Name	**Facility ID#**	**Mailing Address**
S&S Landfill	033-00129	4439 Good Hope Pike Clarksburg, WV 26301
Short Creek Landfill aka Northfork Landfill	069-00071	258 North Fork Road Wheeling, WV 26003
Sycamore Landfill	079-00105	4301 Sycamore Ridge Road Hurricane, WV 25526
Tucker County Landfill	093-00017	P.O. Box 445 Davis, WV 26260
Wetzel County Landfill	103-0034	Rt. 1 Box 156A New Martinsville, WV 26155

MSW Closed Landfill Source Inventory		
Facility Name	**Facility ID#**	**Mailing Address**
Webster County Landfill	101-0031	1350 Excelsior Road Webster Springs, WV 26288

4.2. Emissions Inventory

Subpart B [40 C.F.R. § 60.25(a)]

The plan shall include emissions data for the designated pollutants and information related to the emissions as specified in 40 C.F.R. 60, Appendix D. Data must be summarized, and the emission rates of designated pollutants must be correlated with applicable emission standards.

WV Plan

The tables below provide the NMOC emission rates for each active MSW landfill and for each MSW landfill in the closed landfill subcategory for MSW landfills that closed on or before September 27, 2017. MSW landfills in this subcategory continue to be subject to an NMOC emission threshold of 50 Mg/yr for determining when controls must be installed or can be removed.

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Active MSW Landfill Emissions Inventory Table				
Facility Name	**Is the Design Capacity >2.5 x 10^6 Mg?**	**NMOC Emission Rate (Mg/yr)**	**Is the facility NMOC emission rate > 34 Mg/yr?**	**Is the facility subject to Subpart Cf or XXX?**
Brooke Valero	Yes	338.40[a]	Yes	XXX
Charleston Landfill	Yes	4.5[a]	No	XXX
Capels Landfill aka McDowell County Landfill aka Copper Ridge Landfill	Yes	5.82[a]	No	Cf
Disposal Service, Inc.	Yes	6.54[a]	No	XXX
Greenbrier County	No	NA	No	Cf
H.A.M. Sanitary Landfill LLC	No	NA	NA	XXX
Meadowfill	Yes	10.10[a]	No	XXX
Mercer County Landfill	Yes	2.90[a]	No	XXX
Nicholas County Landfill	No	NA	NA	Cf
L.C.S. Services aka North Mountain	Yes	2.3[a]	No	XXX
Northwestern Landfill	Yes	10.52[a]	No	XXX
Pocahontas County	No	NA	NA	Cf
Raleigh County	Yes	25.06[a]	No	Cf
S&S Landfill	Yes	4.03[a]	No	XXX
Short Creek Landfill aka Northfork Landfill	Yes	608.3[a]	Yes	XXX
Sycamore Landfill	Yes	36.5[b]	Yes	Cf
Tucker County Landfill	Yes	3.37[a]	No	XXX
Wetzel County Landfill	Yes	64.04[a]	Yes	XXX

[a] Values are based on 2017 NMOC emission rate data submitted by each facility.
[b] Value is based on 5-year projected estimate submitted in 2016.

Closed MSW Landfill Subcategory Emissions Inventory Table				
Facility Name	**Is the Design Capacity >2.5 x 10^6 Mg?**	**NMOC Emission Rate (Mg/yr)**	**Is the facility NMOC emission rate > 50 Mg/yr?**	**Is the facility subject to Subpart Cf or XXX?**
Webster County Landfill	No	NA	NA	Cf

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4.3. Compliance Schedules and Increments of Progress

Subpart B [40 C.F.R. §§ 60.24(a) and (e)]

Each plan shall include compliance schedules. 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.

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.

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; (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.

Subpart Cf - Compliance Times [40 C.F.R. § 60.32f]

Planning, awarding of contracts, installing, and starting up MSW landfill air emission collection and control equipment must be completed within 30 months after the date the NMOC emission rate report shows NMOC emissions are equal to or exceed 34 Mg/yr (50 Mg/yr for the MSW closed landfill subcategory); or within 30 months after the date of the most recent NMOC emission

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rate report shows the NMOC emissions are equal to or exceed 34 Mg/yr (50 Mg/yr for the MSW closed landfill subcategory), if Tier 4 surface emissions monitoring shows a surface emission concentration of 500 ppm methane or greater.

WV Plan

Section 7.3 of 45 C.S.R. 23 establishes requirements for compliance times. The owner or operator is required to install and start up air emission collection and control equipment capable of meeting the requirements provided in 45 C.S.R. 23 § 7.4 by the compliance times in the table below.

Compliance Times for Existing Facilities Subject to 40 C.F.R. 60, Subpart Cf set forth in Section 7 of 45 C.S.R. 23		
Category of Sources	**Requirement**	**Compliance Date**
Each active MSW landfill required by §45-23-7.4 to install a GCCS	Install and start-up air emissions collection and control equipment capable of meeting requirements of 45CSR23 § 7.	30 months after NMOC emission rate report showed NMOC emissions ≥ 34 Mg/yr; OR 30 months after the most recent NMOC emission rate report shows NMOC emissions are ≥ 34 Mg/yr, if Tier 4 surface emissions monitoring shows a surface emission concentration ≥ 500 ppm methane
Each MSW landfill in the closed landfill subcategory required by §45-23-7.4 to install a GCCS	Install and start-up air emissions collection and control equipment capable of meeting requirements of 45CSR23 § 7.	30 months after the most recent NMOC emission rate report shows NMOC emissions are ≥ 50 Mg/yr; OR 30 months after the most recent NMOC emission rate report shows NMOC emissions are ≥ 50 Mg/yr for the closed MSW landfill subcategory, if Tier 4 surface emissions monitoring shows a surface emission concentration ≥ 500 ppm methane

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The table below provides the increments of progress to achieve compliance for each designated facility or category of facilities that is required to install and start-up air emission collection and control equipment capable of meeting the requirements of 45 C.S.R. 23 § 7.4.

Facility Name or Category of Sources	**Increment of Progress**	**Compliance Date**
Any MSW landfill subject to Subpart Cf	Submit an initial design capacity report per §45-23-7.9.a.	June 1, 2019
Any MSW landfill subject to Subpart Cf with a design capacity ≥ 2.5 x 10^6 Mg and 2.5 x 10^6 m^3	Submit an initial NMOC emission rate report per §45-23-7.9.c.	June 1, 2019
Any active MSW landfill subject to Subpart Cf with a design capacity ≥ 2.5 x 10^6 Mg and 2.5 x 10^6 m^3	Prepare and submit to the Secretary a GCCS design plan, approved by a professional engineer that meets §45-23-7.9.d .	One year after the first NMOC emission rate report in which the NMOC emission rate ≥ 34 Mg/yr
Any closed MSW landfill subcategory subject to Subpart Cf with a design capacity ≥ 2.5 x 10^6 Mg and 2.5 x 10^6 m^3	Prepare and submit to the Secretary a GCCS design plan, approved by a professional engineer that meets §45-23-7.9.d .	One year after the first NMOC emission rate report where the NMOC emission rate ≥ 50 Mg/yr
Each active MSW landfill required to install a GCCS under §45-23-7.4	Plan, award contracts, install, and start-up air emission collection and control equipment capable of meeting requirements of 45CSR23 § 7.	30 months after NMOC emission rate report showed NMOC emissions ≥ 34 Mg/yr; OR 30 months after the most recent NMOC emission rate report shows NMOC emissions are ≥ 34 Mg/yr, if Tier 4 surface emissions monitoring shows a surface emission concentration ≥ 500 ppm methane

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Facility Name or Category of Sources	Increment of Progress	Compliance Date
Each MSW landfill in the closed landfill subcategory required to install a GCCS under §45-23-7.4	Plan, award contracts, install, and start-up air emission collection and control equipment capable of meeting requirements of §45-23-7.	30 months after the most recent NMOC emission rate report shows NMOC emissions are ≥ 50 Mg/yr; OR 30 months after the most recent NMOC emission rate report shows NMOC emissions are ≥ 50 Mg/yr for the closed MSW landfill subcategory, if Tier 4 surface emissions monitoring shows a surface emission concentration ≥ 500 ppm methane

The compliance schedule requirements under 45 C.S.R. 23 §7.3 were adopted from the 40 C.F.R. 60, Subpart Cf emission guidelines and therefore, meet the state plan and EG requirements of 40 C.F.R. 60, Subparts B and Cf.

4.4. Emission Standards and Operational Standards

4.4.a. Emission Standards

Subpart B [40 C.F.R. § 60.24(a)]

Each plan shall include emission standards. Emission standards shall either be based on an allowance system or prescribe allowable rates of emissions except when it is clearly impracticable. Emission standards shall apply to all designated facilities within the state.

Subpart Cf - MSW Landfill Emissions [40 C.F.R. § 60.33f]

Each owner or operator of an MSW landfill having a design capacity greater than or equal to 2.5 million megagrams by mass and 2.5 million cubic meters by volume must collect and control emissions at each MSW landfill that meets the conditions of 40 C.F.R. § 60.33f(a); and either

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install a GCCS or calculate an initial NMOC emission rate. The NMOC emission rate shall be recalculated annually except as allowed.

A state plan must include provisions for the installation of a GCCS that meets the requirements in 40 C.F.R. § 60.33f(b) and for the control of the gas collected from the MSW landfill using control devices that meet the requirements in 40 C.F.R. § 60.33f(c).

Each owner or operator of an MSW landfill having a design capacity less than 2.5 million megagrams by mass and 2.5 million cubic meters by volume must submit an initial design capacity report per 40 C.F.R. § 60.38f(a).

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The MSW landfill emission requirements are provided in 45 C.S.R. 23 § 7.4. Each owner or operator of a MSW landfill with 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 emissions at each MSW landfill that meet the conditions of §45-23-7.4.a. The collection system requirements are provided in §45-23-7.4.b; the control system requirements are provided in §45-23-7.4.c; and the emissions requirements are provided in §45-23-7.4.e. The design capacity requirements are provided in §45-23-7.4.d; each owner or operator of a MSW landfill with a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters shall either install a GCCS or calculate an initial NMOC emission rate for the landfill. The NMOC emission rate shall be recalculated annually except as allowed under §45-23-7.9.c.3.

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Each owner or operator of an MSW landfill having a design capacity less than 2.5 million megagrams by mass and 2.5 million cubic meters by volume must submit an initial design capacity report in accordance with §45-23-7.4.d. Removal criteria, adopted from 40 C.F.R. 60 § 60.33f(f), provided in section 7.4.f of 45 C.S.R. 23.

4.4.b. Operational Standards

Subpart Cf - Operational Standards for Collection and Control Systems [40 C.F.R. § 60.34f] and Specifications for Active Collection Systems [40 C.F.R. § 60.40f]

A state plan must include provisions for operational standards for an MSW landfill with a GCCS and specifications for active collection systems.

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Specifications for active collection systems are provided in §45-23-7.5.a. The owner or operator shall site active collection wells, horizontal collectors, surface collectors or other extraction devices at a sufficient density throughout all gas producing areas using the procedures provided in §45-23-7.5.a.

Operational standards for GCCSs are provided in §45-23-7.5.b. Each owner or operator of an MSW landfill with a GCCS used to comply with sections 7.4.b and 7.4.c of 45 C.S.R. 23 must meet the operational standard requirements provided in §45-23-7.5.b.

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The emissions and operational standards requirements of 45 C.S.R. 23 were adopted from the 40 C.F.R. 60, Subpart Cf emission guidelines and therefore, meet the state plan and EG requirements of 40 C.F.R. 60, Subparts B and Cf.

4.5. Performance Testing, Monitoring, Recordkeeping, and Reporting

4.5.a. Compliance and Performance Testing

Subpart B [40 C.F.R. § 60.24(b)(2)]

Test methods and procedures for determining compliance with the emission standards shall be specified in the state plan.

Subpart Cf - Test Methods and Procedures and Compliance Provisions [40 C.F.R. §§ 60.35f and 60.36f]

A state plan must include the 40 C.F.R. § 60.35f provisions to calculate the MSW landfill NMOC emission rate or to conduct a surface emission monitoring demonstration and the 40 C.F.R. § 60.36f compliance provisions.

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Testing requirements provided in §45-23-7.6 include NMOC emission rate calculation requirements and surface emission monitoring demonstration requirements.

Compliance requirements are provided in §§45-23-7.7 and 7.2.e. The requirements for existing MSW landfills apply at all times, including periods of startup, shutdown or malfunction. During

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periods of startup, shutdown or malfunction, the owner or operator shall comply with the work practice specified in 7.5.b.5 in lieu of compliance with the provisions in section 7.7.

The compliance and performance testing requirements of 45 C.S.R. 23 were adopted from the 40 C.F.R. 60, Subpart Cf emission guidelines and therefore, meet the state plan and EG requirements of 40 C.F.R. 60, Subparts B and Cf.

4.5.b. Monitoring

Subpart B [§ 60.25(b)]

Each plan shall provide for monitoring the compliance status with applicable emission standards.

Subpart Cf - Monitoring of Operations [§60.37f]

A state plan must include the monitoring provisions under 40 C.F.R. §60.37f, except as provided in § 60.38f(d)(2).

WV Plan

The monitoring requirements were adopted from the 40 C.F.R. 60, Subpart Cf emission guidelines and are provided in §45-23-7.8.

The monitoring requirements of 45 C.S.R. 23 meet the state plan and EG requirements of 40 C.F.R. 60, Subparts B and Cf.

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4.5.c. Recordkeeping and Reporting

Subpart B [§§ 60.25 (b) and (c)]

Each plan shall, as a minimum, provide for legally enforceable procedures 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. Each plan shall, as a minimum, provide for periodic inspection and, when applicable, testing of designated facilities.

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

Subpart Cf - Recordkeeping and Reporting Guidelines [§§ 60.39f and 60.38f]

A state plan must include the 40 C.F.R. § 60.39f recordkeeping guidelines and the 40 C.F.R. § 60.38f reporting guidelines.

WV Plan

Recordkeeping and reporting requirements are established in §45-23-7.10 and §45-23-7.9, respectively, and are adopted from the EGs. Reporting requirements include the following: (a) Design capacity report; (b) Amended design capacity report; (c) NMOC emission rate report; (d) GCCS design plan; (e) Revised design plan; (f) Closure report; (g) Equipment removal report; (h) Annual report; (i) Initial performance test report; (j) Electronic reporting; (k) Corrective action and the corresponding timeline; (l) Liquids addition; and (m) Tier 4 notification.

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45 C.S.R. 23 § 7.2.c specifies conditions requiring an owner or operator to obtain a Title V operating permit. The WV Title V operating program is codified under 45 C.S.R. 30 and was last approved by the EPA at 81 Fed. Reg. 7463, March 14, 2016.

Other sections of the state plan provide additional information requested by Subpart B. Please refer to the following sections of this plan:

- 4.5.a for information regarding compliance and performance testing;
- 4.5.b for information regarding monitoring;
- 4.6 for information regarding public participation;
- 4.8 for information regarding enforceable state mechanisms for implementation; and
- 4.9 for information regarding legal authority

The recordkeeping and reporting requirements of 45 C.S.R. 23 were adopted from the 40 C.F.R. 60, Subpart Cf emission guidelines and therefore, meet the state plan and EG requirements of 40 C.F.R. 60, Subparts B and Cf.

4.6. Public Participation

Subpart B [40 C.F.R. §§ 60.23(c) - (f)]

The state is required to conduct one or more public hearings on the plan revision. The state plan must include certification that the hearing for the state plan was held in accordance with § 60.23(d), 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. Notice of the hearing shall be given at least 30 days prior to the hearing date and shall include the information required under §

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60.23(d). The state shall prepare and retain, for a minimum of two years, a record of each hearing for inspection by any interested party. The record, at a minimum, shall contain a list of witnesses together with the text of each presentation. Certification that each hearing was held in accordance with 40 C.F.R. § 60.23(c) with the notice required by § 60.23(d) must be submitted with each state plan revision along with the list of witnesses and their organizational affiliations appearing at the hearing and a brief written summary of each presentation or written submission.

WV Plan

Prior to submitting this plan revision, the DEP allowed opportunity for public comment, held a public hearing on the plan, and provided notification to the EPA in a letter to Christina Fernandez dated July 17, 2018. The notice of the public hearing was published on July 20, 2018 as a Class 1 legal advertisement in the Charleston Newspapers and was published on July 20, 2018 in the WV State Register, providing at least 30-day notice prior to the hearing. The public hearing was held on August 20, 2018 at 601 57th Street, SE, Charleston, WV at 5:30 p.m.

The DEP certified in the transmittal letter that the public hearing was held in accordance with 40 C.F.R. § 60.23(d). Records of the hearing will be maintained in accordance with 40 C.F.R. § 60.23(e) and will be maintained for at least two years.

As required under 40 C.F.R. § 60.23(f), notices of the public hearing, the hearing sign-in sheet of attendees including their organizational affiliations, the transcript from the public hearing, the public comment received during the notice period and the response to comment document, are included in Appendix B of this plan.

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The public participation requirements for this state plan revision meet the state plan requirements of 40 C.F.R. 60, Subparts B.

4.7. Progress Reports

Subpart B [§§ 60.25 (e and f)]

The state is required to submit progress reports in plan enforcement to the EPA on an annual basis. The annual progress report must include the following information:

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 40 C.F.R. § 60.25(a) 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 40 C.F.R. § 60.25(a) or in previous progress reports.

6. Submission of copies of technical reports on all performance testing on designated facilities conducted under 40 C.F.R. § 60.25(b)(2), complete with concurrently recorded process data.

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WV Plan

The WV DEP, DAQ last submitted the § 111(d) plan Annual Progress Report for Existing Municipal Solid Waste Landfills to Mr. Cosmo Servidio, EPA Region 3, on July 9, 2018 in accordance with the requirements of 40 C.F.R. §§ 60.25(e) and (f). WV DEP remains committed to submitting the progress plan enforcement reports to the EPA on an annual basis.

WV has fulfilled the progress report requirements of 40 C.F.R. 60, Subparts B.

4.8. Identification of Enforceable State Mechanisms for Implementation

Provided herein are the enforceable mechanisms WV selected to implement the new source performance standards of 40 C.F.R. 60, Subpart XXX, *Standards of Performance for Municipal Solid Waste Landfills that Commenced Construction, Reconstruction, or Modification after July 17, 2014,* and the EGs of 40 C.F.R. 60, Subpart Cf, *Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills*.

4.8.a. Implementation of New Source Performance Standards

Subpart XXX

40 C.F.R. § 60.760 specifies test methods and procedures authorities provided under 40 C.F.R. § 60.764(a)(5) are retained by the EPA and are not transferred to the State.

WV Plan

45 C.S.R. 23, *Control of Air Pollution from Municipal Solid Waste Landfills,* was promulgated by the WV DEP following the passage of Senate Bill 163 in the WV 2018 legislative session, with

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signature by the Governor on February 27, 2018. Legislative rule 45 C.S.R. 23 became effective June 1, 2018 and is included as Appendix A to this plan.

The Secretary adopted and incorporated by reference 40 C.F.R. 60, Subpart XXX including any applicable reference methods, performance specifications, and other test methods, appended to the standard and contained in the subpart as of June 1, 2017 in section 3.1 of 45 C.S.R. 23. The authority for 40 C.F.R. § 60.764(a)(5) is retained by the EPA, as stated in paragraph §45-23-8.1.b.8.

§45-23-5 requires owners or operators of a new MSW landfill to comply with all applicable standards of performance, requirements, and provisions of 40 C.F.R. 60 Subpart XXX, including any reference methods, performance specifications and other test methods associated with Subpart XXX. No person shall construct or operate a new MSW landfill that results in a violation of 40 C.F.R. 60, Subpart XXX or 45 C.S.R. 23.

4.8.b. Implementation of Emission Guidelines for Existing MSW Landfills

Subpart Cf [40 C.F.R. § 60.30f]

If you are the Administrator of an air quality program with one or more existing MSW landfills, a state plan must be submitted that implements the EGs of 40 C.F.R. 60, Subpart Cf. The authority to approve alternative methods to determine the NMOC concentration or a site-specific methane generation rate constant (k) will not be delegated to the state.

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WV Plan

45 C.S.R. 23 was promulgated by the WV DEP following the passage of Senate Bill 163 during the WV 2018 legislative session, with signature by the Governor on February 27, 2018. Legislative rule 45 C.S.R. 23 became effective June 1, 2018 and is included as Appendix A to this plan. As stated in §45-23-8.1.b.8, the authority for 40 C.F.R. § 60.764(a)(5) to approve other methods to determine the NMOC concentration or a site specific methane generation rate constant as an alternative to the methods under 40 C.F.R. § 60.764(a)(3) and (4) is retained by the EPA.

45 C.S.R. 23 adopts the EGs and compliance times for MSW landfills in 40 C.F.R. 60, Subpart Cf. 45 C.S.R. 23 § 7.1 requires the owner or operator of an existing MSW landfill to comply with the applicable compliance times, requirements, and provisions of 40 C.F.R. 60, Subpart Cf as set forth in §45-23-7, including any reference methods, performance specification, and other test methods. No person shall construct, reconstruct, modify, or operate, or cause to be reconstructed, modified, or operated, an existing MSW landfill that results in a violation of 45 C.S.R. 23.

The WV DEP satisfied the EG implementation requirements of 40 C.F.R. 60, Subparts B and Cf.

4.9. Legal Authority

Pursuant to 40 C.F.R. § 60.26(a), state plans must show that states have legal authority to carry out the plan including the authority to adopt emission standards and compliance schedules applicable to designated facilities and to enforce applicable laws, regulations, standards, compliance schedules and seek injunctive relief.

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The DAQ has the statutory and regulatory authority under W.Va. Code §§ 22-5-1 et seq. (see Appendix C) to adopt and enforce rules and regulations to implement the State Plan. W. Va. Code § 22-5-4(a)(4) authorizes the Director to promulgate legislative rules relating to the control of air pollution. The DAQ promulgated legislative rule 45 C.S.R. 23 with an effective date of June 1, 2018, that incorporates by reference the Municipal Solid Waste Landfills NSPS (40 C.F.R. 60, Subpart XXX). Such incorporation by reference of model legislation is a permissible means of enacting law under West Virginia law. Additionally, 45 C.S.R. 23 adopts the EGs for existing MSW landfills under 40 C.F.R. 60, Subpart Cf.

The requirements for an existing MSW landfill are provided under section 7 of 45 C.S.R. 23. The applicable emission standards and other requirements for existing facilities are established in 45 C.S.R. 23 § 7.1. The pertinent provisions from the federal regulations relating to compliance schedules for existing facilities are contained in subsection 7.3 of 45 C.S.R. 23.

State plans must also demonstrate the state has authority to obtain information necessary to determine compliance with applicable laws, regulations, standards, and compliance schedules, including authority to require recordkeeping and to make inspections and conduct tests of designated facilities.

Regarding the enforcement of applicable laws, regulations, standards, and compliance schedules, the DEP has several enforcement mechanisms available under state law, including permits, administrative orders, civil and criminal penalties, and injunctive relief, detailed below.

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The emission standards and compliance schedules included in the plan are codified at 45 C.S.R. 23. Any violation of such standards or schedules constitutes a violation of a WV rule and is subject to civil penalties of up to $10,000 for each day of violation and criminal penalties of up to $25,000 for each day of violation and/or imprisonment for up to one year in jail (W.Va. Code § 22-5-6). In addition to civil and criminal penalties, the DEP may seek injunctive relief against any person in violation of 45 C.S.R. 23 (W. Va. Code § 22-5-7).

In addition to penalties and injunctive relief, the DEP may compel compliance with 45 C.S.R. 23 through the issuance of administrative orders. Under W. Va. Code §§ 22-5-4(a)(5) and (6) and 22-5-5, the DEP may issue administrative orders including cease and desist orders and order suspending, modifying or revoking permits. Such administrative orders may be appealed to the Air Quality Board, an administrative board with quasi-judicial powers. The DEP may also collect administrative penalties from a source in violation of a rule under an administrative consent order (W. Va. Code § 22-5-4(a)(18)).

Existing facilities may also be required to obtain permits, in which case, emission standards and compliance schedules from 45 C.S.R. 23 are included as enforceable permit conditions.[1] The existing facility may be required to obtain a preconstruction permit under W. Va. Code § 22-5-11 and/or an operating permit under W. Va. Code § 22-5-12.[2] The operating permit must ensure compliance with all applicable requirements, including the emission standards and compliance

[1] Under W. Va. Code § 22-5-6, the violation of a permit is subject to the same enforcement remedies as the violation of a rule.

[2] The State's applicable preconstruction permit program rules consist of 45 C.S.R. 13 for minor sources, 45 C.S.R. 14 for major PSD sources, and 45 C.S.R. 19 for major sources located in non-attainment areas. The State's operating permit program (Title V program) is found at 45 C.S.R. 30.

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schedules required under 45 C.S.R. 23; W. Va. Code §§ 22-5-11 and 12; also see WV 45 C.S.R. 13 §§ 5.7 and 5.11 and WV 45 C.S.R. 30 Section 5 and 45 C.S.R. 30 Section 12.

In addition to the authority to adopt and enforce the applicable emission standards and compliance schedules, the DEP has authority to obtain information necessary to determine the compliance status of existing facilities, including requiring facilities to maintain compliance records, pursuant to W.Va. Code § 22-5-4(a)(14), which states:

> (a) The director is authorized:
>
> > (14) To require any and all persons who are directly or indirectly discharging air pollutants into the air to file with the director such information as the director may require in a form or manner prescribed by him or her for such purpose, including, but not limited to, location, size and height of discharge outlets, processes employed, fuels used and the nature and time periods of duration of discharges. Such information shall be filed with the director, when and in such reasonable time, and in such manner as the director may prescribe.

The DEP also has the authority to conduct inspections and tests of existing facilities pursuant to W.Va. Code § 22-5-4 (a)(6) and (9), which state:

> (a) The director is authorized:
>
> > (6) To consider complaints, subpoena witnesses, administer oaths, make investigations, and hold hearings relevant to the promulgation of rules and the entry of compliance orders hereunder; and

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> (9) To enter and inspect any property, premise, or place on or at which a source of air pollutants is located or is being constructed, installed or established at any reasonable time for the purpose of ascertaining the state of compliance with this article and rules promulgated under the provisions of this article. No person shall refuse entry or access to any authorized representative of the director who requests entry for purposes of inspection, and who presents appropriate credentials; nor shall any person obstruct, hamper or interfere with any such inspection: Provided, that nothing contained in this article eliminates any obligation to follow any process that may be required by law.

An additional authority which must be demonstrated in the plan is the agency's authority to require the use of monitors and require emission reports of existing facilities. This authority exists in W.Va. Code § 22-5-4 (a)(15), which states:

> (15) To require the owner or operator of any stationary source discharging air pollutants to install such monitoring equipment or devices as the director may prescribe and to submit periodic reports on the nature and amount of such discharges to the director.

In addition to the general statutory authority discussed above, the DEP has specific regulatory authority under 45 C.S.R. 23 to require existing facilities to comply with requirements related to: emissions; gas collection and control systems; testing; compliance; monitoring; recordkeeping; and reporting, and in accordance with the applicable provisions of 40 C.F.R. 60, Subpart Cf. Furthermore, the DEP has authority to include conditions in any administrative orders or permits

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issued to existing facilities to ensure compliance with such conditions. W.Va. Code §§ 22-5-4(a)(5), 22-5-5, 22-5-11, and 22-5-12.

Lastly, the state must have authority to make emission data from existing facilities available to the public. The DEP has such authority under W.Va. Code § 22-5-10, which states in pertinent part:

> All air quality data, emission data, permits, compliance schedules, . . . shall be available to the public, except that upon a showing satisfactory to the director . . . that records, reports, data, or information . . . would divulge methods or processes entitled to protection as trade secrets . . . the director shall consider such records. . . confidential: Provided, that such confidentiality does not apply to the types and amounts of air pollutants discharged and that such records . . . may be disclosed to other officers, employees or authorized representatives of the state or of the federal environmental protection agency . . . Provided, however, That such officers, employees or authorized representatives . . . protect such records . . . to the same degree required of the director by this section. . . .

See, 45 C.S.R. 31 § 2.4 for the definition of the term "types and amounts of pollutants discharged."

In addition to W.Va. Code § 22-5-10, the state's Freedom of Information Act requires the DEP to make records available to the public upon request, unless such records specifically fall under one of the exemptions contained in the Act (one of which is an exemption for "trade secrets"). See, W.Va. Code §§ 29B-1-1 et seq.

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In conclusion, the WV DEP possesses the requisite authority to adopt, implement, and enforce all necessary elements of the WV §§ 111(d) plan for MSW landfills, except as outlined in 40 C.F.R. §§ 60.764(a)(3), (4), and (5).

The WV DEP has satisfied the legal authority requirements of 40 C.F.R. 60, Subparts B.

5.0. Conclusion

WV has one or more existing MSW landfill that commenced construction, modification, or reconstruction on or before July 17, 2014 and herein submits this revised plan to implement the EGs of 40 C.F.R. 60, Subpart Cf, *Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills,* as required by 40 C.F.R. 60 § 60.30f(a).

WV legislative rule, 45 C.S.R. 23 *Control of Air Pollution from Municipal Solid Waste Landfills,* established and adopted the EGs and compliance times of 40 C.F.R. 60, Subpart Cf. The owner or operator of an MSW landfill located in WV must comply with all applicable standards of performance, requirements, and provisions of 40 C.F.R. 60, Subpart Cf set forth in section 7 of 45 C.S.R. 23, including any reference methods, performance specifications, and other test methods.

Having herein demonstrated that all required elements for the MSW landfills state plan submittal have been satisfied and having provided the mechanisms to implement and enforce such standards, the WV DEP respectfully requests the EPA to approve this *West Virginia State Plan Revision for Municipal Solid Waste Landfills*. The plan implements the EGs of 40 C.F.R. 60, Subpart Cf,

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Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills, under 45 C.S.R. 23 and fulfills the state's obligations under § 111(d)(1) of the CAA.

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APPENDICIES

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APPENDIX A

45 C.S.R. 23
FINAL RULE

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WEST VIRGINIA SECRETARY OF STATE

MAC WARNER

ADMINISTRATIVE LAW DIVISION

eFILED

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NOTICE OF FINAL FILING AND ADOPTION OF A LEGISLATIVE RULE AUTHORIZED BY THE WEST VIRGINIA LEGISLATURE

AGENCY: Air Quality

TITLE-SERIES: 45-23

RULE TYPE: Legislative

Amendment to Existing Rule: Yes

Repeal of existing rule: No

RULE NAME: Control of Air Pollution from Municipal Solid Waste Landfills

CITE STATUTORY AUTHORITY: W. Va. Code § 22-5-4

The above rule has been authorized by the West Virginia Legislature.

Authorization is cited in (house or senate bill number) SB163

Section § 64-3-1(f) Passed On 2/27/2018 12:00:00 AM

This rule is filed with the Secretary of State. This rule becomes effective on the following date:

June 1, 2018

This rule shall terminate and have no further force or effect from the following date:

00/00/0000

TITLE 45
LEGISLATIVE RULE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
AIR QUALITY

SERIES 23
CONTROL OF AIR POLLUTION FROM MUNICIPAL SOLID WASTE LANDFILLS

§45-23-1. General.

1.1. Scope. -- This rule establishes and adopts standards of performance pursuant to § 111(b) of the federal Clean Air Act (CAA) and establishes emission guidelines and compliance times pursuant to § 111(d) of the federal CAA for the control of certain designated pollutants from the following municipal solid waste landfill categories:

1.1.a. Municipal solid waste landfills subject to the emission guidelines and compliance times promulgated by the U.S. EPA under 40 CFR Part 60, Subpart Cc and set forth in section 6 of this rule;

1.1.b. Municipal solid waste landfills subject to the standards of performance promulgated by the U.S. EPA under 40 CFR Part 60, Subpart WWW and set forth in section 4 of this rule;

1.1.c. Municipal solid waste landfills subject to the emission guidelines and compliance times promulgated by the U.S. EPA under 40 CFR Part 60, Subpart Cf and set forth is section 7 of this rule; and

1.1.d. Municipal solid waste landfills that commenced construction, reconstruction or modification after July 17, 2014 are subject to the standards of performance promulgated by the U.S. EPA under 40 CFR Part 60, Subpart XXX and set forth in section 5 of this rule;

1.2. Authority. -- W. Va. Code § 22-5-4.

1.3. Filing Date. -- March 22, 2018.

1.4. Effective Date. -- June 1, 2018.

1.5. This rule codifies general procedures and criteria to implement a program of specific standards of performance, emission guidelines, and compliance times for municipal solid waste landfills.

1.6. Neither compliance with the provisions of this rule nor the absence of specific language to cover particular situations constitutes approval or implies consent or condonation of any emission that is released in any locality in such a manner or amount as to cause or contribute to statutory air pollution. Neither does it exempt nor excuse any person from complying with other applicable laws, ordinances, regulations or orders of governmental entities having jurisdiction over municipal solid waste landfills.

1.7. Incorporation by Reference. -- Federal Counterpart Regulation. The Secretary has determined that a federal counterpart rule exists. In accordance with the Secretary's recommendation, and with limited exception, this rule incorporates by reference, 40 CFR Part 60 Subpart XXX effective June 1, 2017.

§45-23-2. Definitions.

2.1. "Administrator" means the Administrator of the United States Environmental Protection Agency or his or her designated representative.

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2.2. "CFR" means the Code of Federal Regulations published by the Office of the Federal Register, National Archives and Records Service, General Services Administration.

2.3. "Clean Air Act" or "CAA" means the federal Clean Air Act, as amended, 42 U.S.C. § 7401, et seq.

2.4. "Closed landfill" means a landfill into which solid waste is no longer being placed and into which no additional solid wastes will be placed without first filing a notification of modification as prescribed in 40 CFR § 60.7(a)(4) (incorporated by reference into State law at 45CSR16). Once the owner or operator has filed a notification of modification, and places additional solid waste in the landfill, the landfill is no longer closed.

2.5. "Closed landfill subcategory" means a closed landfill that has submitted a closure report on or before September 27, 2017, as specified in subdivision 7.9.f below

2.6. "Existing" means each municipal solid waste landfill that commenced construction, reconstruction or modification on or before July 17, 2014.

2.7. "Modification" means an increase in the permitted volume design capacity of the landfill 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.

2.8. "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. A MSWL may also receive other types of Resource Conservation and Recovery Act (RCRA) Subtitle D wastes (40 CFR § 257.2), such as commercial solid waste, nonhazardous sludge, conditionally exempt small quantity generator waste, and industrial solid waste. Portions of a MSWL may be separated by access roads. A MSWL may be publicly or privately owned. A MSWL may be a new MSWL, an existing MSWL, or a lateral expansion.

2.9. "Municipal solid waste landfill emissions" or "MSWL emissions" means gas generated by the decomposition of organic waste deposited in a MSWL or derived from the evolution of organic compounds in the waste.

2.10. "NMOC", (Non Methane Organic Compounds) means nonmethane organic compounds, as measured according to the provisions of subsection 7.6. below.

2.11. "Person" means any and all persons, natural or artificial, including the state of West Virginia or any other state, the United States of America, any municipal, statutory, public or private corporation organized or existing under the laws of this or any other state or country, and any firm, partnership or association of whatever nature.

2.12. "ppm" means parts per million.

2.13. "Secretary" means the Secretary of the Department of Environmental Protection or such other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8.

2.14. "Treatment System" means a system that filters, de-waters, and compresses landfill gas for sale or beneficial use.

2.15. Other words and phrases used in this rule, unless otherwise indicated, shall have the meaning ascribed to them in 40 CFR Part 60 Subparts A, B, Cc, Cf, WWW and XXX as applicable. Words and

phrases not defined therein shall have the meaning given to them in the federal Clean Air Act.

§45-23-3. Adoption of standards.

3.1. The Secretary hereby adopts and incorporates by reference the standards of performance and definitions set forth in 40 CFR Part 60, Subparts B and XXX, including any applicable reference methods, performance specifications, and other test methods, which are appended to these standards and contained in this rule.

§45-23-4. Requirements for municipal solid waste landfills constructed, modified, or reconstructed on or after May 30, 1991 and before July 17, 2014.

4.1. The owner or operator of a MSWL under subsection 4.2 below shall comply with all applicable standards of performance, requirements, and provisions of 40 CFR Part 60, Subpart Cf set forth in section 7 of this rule, including any reference methods, performance specifications, and other test methods. No person shall construct or operate a MSWL that results in a violation of this rule.

4.2. Applicability. The designated facility to which section 7 of this rule applies is each MSWL that:

4.2.a. Commenced construction on or after May 30, 1991 and before July 17, 2014; or

4.2.b. Commenced reconstruction or modification on or after May 30, 1991 and before July 17, 2014; and

4.2.c. Was previously subject to 40 CFR Part 60, Subpart WWW.

4.3. Each MSWL that was defined as "new" in the previous revision of 45CSR23 is defined as an "existing" MSWL.

§45-23-5. Requirements for new municipal solid waste landfills.

5.1. The owner or operator of a new MSWL under subsection 5.2 below shall comply with all applicable standards of performance, requirements, and provisions of 40 CFR Part 60 Subpart XXX, including any reference methods, performance specifications, and other test methods associated with Subpart XXX. No person shall construct or operate a new MSWL that results in a violation of 40 CFR Part 60, Subpart XXX or this rule.

5.2. Applicability. -- The owner or operator of a MSWL that meets the following criteria shall be subject to the requirements for a new MWSL set forth in section 3 above. A new MSWL is a MSWL that either:

5.2.a. Commenced construction after July 17, 2014; or

5.2.b. Commenced reconstruction or modification after July 17, 2014.

5.3. Physical or operational changes made to a MSWL solely to comply with 40 CFR Part 60, Subparts Cc, Cf, or WWW are not considered construction, reconstruction or modification for the purposes of applicability.

5.4. Activities required by or conducted pursuant to a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Resource Conservation and Recovery Act (RCRA), or the West Virginia Voluntary Remediation and Redevelopment Act (VRRA) are not considered construction or modification for the purposes of applicability.

§45-23-6. Requirements for existing municipal solid waste landfills constructed, reconstructed, or modified before May 30, 1991.

6.1. The owner or operator of a MSWL under subsection 6.2 below shall comply with all applicable standards of performance, requirements and provisions of 40 CFR Part 60, Subpart Cf, set forth in section 7 of this rule, including any reference methods, performance specifications, and other test methods. No person shall construct or operate a MSWL that results in a violation of this rule.

6.2. Applicability. The designated facility to which section 7 of this rule applies is each MSWL that:

6.2.a. Commenced construction before May 30, 1991; or

6.2.b. Commenced reconstruction or modification before May 30, 1991; or

6.2.c. Each MSWL that was subject to 40 CFR Part 60, Subpart Cc and the requirements of this rule.

§45-23-7. Requirements for existing municipal solid waste landfills.

7.1. Requirements for existing MSWLs. -- The owner or operator of an existing MSWL under subsection 7.2 below shall comply with the applicable compliance times, requirements, and provisions of 40 CFR Part 60 Subpart Cf, set forth in section 7, including any reference methods, performance specifications, and other test methods. No person shall construct, reconstruct, modify or operate, or cause to be reconstructed, modified, or operated, an existing MSWL that results in a violation of this rule.

7.2. Applicability.

7.2.a. Each MSWL that commenced construction, reconstruction or modification before July 17, 2014 is subject to the requirements for an existing MSWL under section 7.

7.2.b. Physical or operational changes made to an existing MSWL solely to comply with the requirements of section 7 are not considered a modification or reconstruction.

7.2.c. Title V operating permits.

7.2.c.1. If the MSWL design capacity is less than 2.5 million megagrams or 2.5 million cubic meters, the owner or operator is not required to obtain an operating permit under 45CSR30 unless the MSWL is otherwise subject to 45CSR30.

7.2.c.2. If the MSWL design capacity is greater than 2.5 million megagrams or 2.5 million cubic meters, the owner or operator shall submit a timely and complete permit application in accordance with 45CS30 within one year of the effective date of this rule.

7.2.c.3. The owner or operator is not required to maintain an operating permit under 45CSR30 for the MSWL after it is closed, if the landfill is not otherwise subject to the requirements of 45CSR30 and if either of the following conditions are met:

7.2.c.3.A. The landfill was never required to install and operate a gas collection and control system under subdivision 7.4 below; or

7.2.c.3.B. The landfill meets the conditions for control system removal specified in subdivision 7.4.f. below.

7.2.d. The owner or operator is not subject to the following reports when a MSWL is in the

closed landfill subcategory, if the owner or operator submitted the reports under the provisions of 40 CFR Part 60, Subpart WWW, and 45CSR23 on or before July 17, 2014:

7.2.d.1. Initial design capacity report per subdivision 7.9.a.

7.2.d.2. Initial or subsequent NMOC emission rate report per subdivision 7.9.c, provided that the most recent NMOC emission rate report indicated the NMOC emissions were below 50 Mg/yr.

7.2.d.3. Collection and control system design plan per subdivision 7.9.d.

7.2.d.4. Closure report per subdivision 7.9.f.

7.2.d.5. Equipment removal report per subdivision 7.9.g.

7.2.d.6. Initial annual report per subdivision 7.9.h.

7.2.d.7. Initial performance test report per subdivision 7.9.i.

7.2.e. The provisions of section 7 apply at all times, including periods of startup, shutdown or malfunction. During periods of startup, shutdown or malfunction, the owner or operator shall comply with the work practice specified in 7.5.b.5 in lieu of the compliance provisions in 7.7.

7.3. Compliance times. -- The owner or operator shall install and start up MSWL air emission collection and control equipment capable of meeting the requirements provided in subsection 7.4 no later than:

7.3.a. Thirty months after an NMOC emission rate report shows NMOC emissions are equal to or exceed 34 megagrams per year; or

7.3.b. Thirty months after an NMOC emission rate report shows NMOC emissions are equal to or exceed 50 megagrams per year for the closed landfill subcategory; or

7.3.c. Thirty months after the most recent NMOC emission rate report shows NMOC emissions are equal to or exceed 34 megagrams per year, if Tier 4 surface emissions monitoring shows a surface emission concentration of 500 ppm methane or greater.

7.3.d. Thirty months after the most recent NMOC emission rate report shows NMOC emissions are equal to or exceed 50 megagrams per year for the closed landfill subcategory, if Tier 4 surface emissions monitoring shows a surface emission concentration of 500 ppm methane or greater.

7.4. Municipal solid waste landfill emissions requirements.

7.4.a. Each owner or operator of a MSWL with 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 MSWL emissions at each MSWL that meet the following conditions:

7.4.a.1. The landfill accepted waste at any time after November 8, 1987, or the MSWL has additional design capacity available for future waste deposition;

7.4.a.2. The landfill commenced construction, reconstruction or modification before July 17, 2014;

7.4.a.3. The landfill has an NMOC emission rate greater than or equal to 34 megagrams per year, or Tier 4 surface emissions monitoring shows a surface emission concentration 500 ppm methane or

greater; or

7.4.a.4. The landfill is in the closed landfill subcategory and has an NMOC emission rate greater than or equal to 50 megagrams per year, or Tier 4 surface emissions monitoring shows a surface emission concentration of 500 ppm methane or greater.

7.4.b. Collection system. -- For each MSWL that meets the criteria under subdivision 7.4.a, the gas collection and control system installation shall meet the requirements under paragraphs 7.4.b.1 through 7.4.b.3 and subdivision 7.4.c

7.4.b.1. The owner or operator shall install and start up a collection and control system that captures the gas generated within the landfill within 30 months after:

7.4.b.1.A. The first annual report in which the NMOC emission rate is equal to or exceeds 34 megagrams per year, unless Tier 2 or Tier 3 sampling demonstrates that the NMOC emission rate is less than 34 megagrams per year, per paragraph 7.9.d.4; or

7.4.b.1.B. The first annual NMOC emission rate report for a landfill in the closed landfill subcategory that the NMOC emission rate equals or exceeds 50 megagrams per year, unless Tier 2 or Tier 3 sampling demonstrates that the NMOC emission rate is less than 50 megagrams per year, per paragraph 7.9.d.4; or

7.4.b.1.C. The most recent NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year based on Tier 2, if the Tier 4 surface emissions monitoring shows a surface methane emission concentration of 500 ppm methane or greater per part 7.9.d.4.C.

7.4.b.2. An active collection system shall:

7.4.b.2.A. 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 system equipment;

7.4.b.2.B. 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 five years or more if active or two years or more if closed or at final grade;

7.4.b.2.C. Collect gas at a sufficient extraction rate; and

7.4.b.2.D. Be designed to minimize off-site migration of subsurface gas.

7.4.b.3. A passive collection system shall:

7.4.b.3.A. Comply with subparagraphs 7.4.b.2.A, 7.4.b.2.B, and 7.4.b.2.D.; and

7.4.b.3.B. Be installed with liners installed on the bottom and all sides in all areas in which gas will be collected, per 40 CFR § 258.40.

7.4.c. Control system. -- Control devices shall meet the following requirements, except as provided in 60 CFR § 60.24.

7.4.c.1. The owner or operator shall design and operate a non-enclosed flare according to the parameters established in 40 CFR § 60.18 and 45CSR16, except as noted in subdivision 7.8.d; or

7.4.c.2. The owner or operator shall design and operate each control system to reduce NMOC by 98 weight percent, or when an enclosed combustion device is used for control, either reduce

NMOC by 98 weight percent or reduce the outlet NMOC concentration to less than 20 ppm by volume, dry basis as hexane at three percent (3%) oxygen or less. The reduction efficiency or concentration in ppm by volume shall be established by an initial performance test using the test methods set out in subdivision 7.6.d and shall be completed no later than 180 days after the initial startup of the approved control system. The performance test is not required for boilers and process heaters with design heat input capacities equal to or greater than 44 megawatts that burn landfill gas for compliance with section 7.

7.4.c.2.A. If a boiler or process heater is used as the control device, the landfill gas stream shall be introduced into the flame zone.

7.4.c.2.B. 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 subsection 7.8.

7.4.c.2.C. For the closed landfill subcategory, the initial or most recent performance test to comply with section 4 or section 6 conducted on or before July 17, 2014 demonstrates compliance.

7.4.c.3. The owner or operator shall route the collected gas to a treatment system that processes the collected gas for subsequent sale or beneficial use, such as fuel for combustion, production of vehicle fuel, production of high-Btu gas for pipeline injection or use as a raw material in a chemical manufacturing process. Venting of treated landfill gas to the ambient air is not allowed. If the treated landfill gas cannot be routed for subsequent sale or beneficial use, then the treated landfill gas shall be controlled according to either paragraphs 7.4.c.1 or 7.4.c.2.

7.4.c.4. All emissions from any atmospheric vent from the gas treatment system are subject to the requirements of subdivisions 7.4.b or 7.4.c. Atmospheric vents located on the condensate storage tank are not part of the treatment system and are exempt from the requirements of subdivisions 7.4.b and 7.4.c.

7.4.d. Design capacity. -- Each owner or operator of an MSWL 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 Secretary per subdivision 7.9.a. The owner or operator may calculate design capacity in either megagrams or cubic meters for comparison with the exemption values. The owner or operator shall document any density conversions and submit them with the report. Submittal of the initial design capacity report satisfies the requirements of section 7, except as provided in paragraphs 7.4.d.1 and 7.4.d.2.

7.4.d.1. The owner or operator shall submit an amended design capacity report if required by subdivision 7.9.b.

7.4.d.1.A. If the design capacity increase is the result of a modification that was commenced after July 17, 2014, then the landfill becomes a new MSWL subject to section 5.

7.4.d.1.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, then the landfill remains an existing MSWL subject to section 7.

7.4.d.2. The owner or operator shall comply with subdivision 7.4.e if there is an increase in the maximum design capacity of any MSWL with an initial design capacity less than 2.5 million megagrams or 2.5 million cubic meters that has a revised maximum design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters.

7.4.e. Emissions. -- Each owner or operator of a MSWL with 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 according to subdivisions 7.4.b and 7.4.c or calculate an initial NMOC emission rate for the landfill using the procedures specified in subdivision 7.6.a. The NMOC emission rate shall be recalculated annually except as provided in paragraph 7.9.c.3.

7.4.e.1. If the calculated NMOC emission rate is less than 34 megagrams per year, the owner or operator shall:

7.4.e.1.A. Submit an annual NMOC emission rate report per 7.9.c except as provided in 7.9.c.3; and

7.4.e.1.B. Recalculate the NMOC emission rate annually per subdivision 7.6.a until either the calculated NMOC emission rate is equal to or greater than 34 megagrams per year or the landfill is closed.

7.4.e.1.B.1. If the initial or annual calculated NMOC emission rate is equal to or greater than 34 megagrams per year, the owner or operator shall either:

7.4.e.1.B.1.(a) Comply with subdivisions 7.4.b and 7.4.c;

7.4.e.1.B.1.(b) Calculate NMOC emissions using the next higher tier in section 7.6; or

7.4.e.1.B.1.(c) Conduct a surface emission monitoring demonstration according to paragraph 7.6.a.11.

7.4.e.1.B.2. The owner or operator shall submit a closure report per subdivision 7.9.f if the landfill is permanently closed, except for the exemption allowed under paragraph 7.2.d.4.

7.4.e.1.B.3. If the most recently calculated NMOC emission rate is equal to or greater than 50 megagrams per year for the closed landfill subcategory, the owner or operator shall either:

7.4.e.1.B.3.(a) Submit a gas collection and control system design plan per 7.9.d, except for the exemptions allowed under paragraph 7.2.d.3, and install a collection and control system per subdivisions 7.4.b and 7.4.c;

7.4.e.1.B.3.(b) Calculate NMOC emissions using the next higher tier in section 7.6; or

7.4.e.1.B.3.(c) Conduct a surface emission monitoring demonstration according to the requirements of paragraph 7.6.a.11.

7.4.e.2. If the calculated NMOC emission rate is equal to or greater than 34 megagrams per year using Tier 1, 2 or 3 procedures, the owner or operator shall either:

7.4.e.2.A. Submit a collection and control system design plan prepared by a professional engineer to the Secretary within one year as required by subdivision 7.9.d, except for the exemption allowed under 7.2.d.3;

7.4.e.2.B. Calculate the NMOC emissions using a higher tier in section 7.6; or

7.4.e.2.C. Conduct a surface emission monitoring demonstration according to the requirements under paragraph 7.6.a.11.

7.4.e.3. For the closed landfill subcategory, 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 shall either:

7.4.e.3.A. Submit a collection and control system design plan as required by subdivision 7.9.d, except for the exemption allowed under 7.2.d.3;

7.4.e.3.B. Calculate NMOC emissions using a higher tier in section 7.6; or

7.4.e.3.C. Conduct a surface emission monitoring demonstration according to the requirements under paragraph 7.6.a.11.

7.4.f. Removal Criteria. -- The owner or operator may cap, remove or decommission the collection and control system if the following criteria are met:

7.4.f.1. The landfill is a closed landfill and a closure report was submitted to the Secretary per subdivision 7.9.f.;

7.4.f.2. The collection and control system has been in operation a minimum of 15 years, or the owner or operator can demonstrate that the gas collection and control system is unable to operate for 15 years due to declining gas flow;

7.4.f.3. The NMOC emission rate at the landfill is less than 34 megagrams per year on three successive test dates, calculated per subdivision 7.6.b. The test dates shall be a minimum of 90 days apart and a maximum of 180 days apart; and

7.4.f.4. The NMOC emission rate for the closed landfill subcategory is less than 50 megagrams per year on three successive test dates, as calculated per subdivision 7.6.b. The test dates shall be a minimum of 90 days apart and a maximum of 180 days apart.

7.5. Collection and Control Systems Requirements.

7.5.a. Specifications for Active Collection Systems.

7.5.a.1. To comply with subdivision 7.4.b, the owner or operator 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 the Secretary has approved alternative procedures.

7.5.a.1.A. A professional engineer shall certify interior collection devices to achieve comprehensive control of surface gas emissions. The following factors shall be addressed in the design:

7.5.a.1.A.1. Depths of refuse;

7.5.a.1.A.2. Refuse gas generation rates and flow characteristics;

7.5.a.1.A.3. Cover properties;

7.5.a.1.A.4. Gas system expandability;

7.5.a.1.A.5. Leachate and condensate management;

7.5.a.1.A.6. Accessibility;

7.5.a.1.A.7. Compatibility with filling operations;

7.5.a.1.A.8. Integration with closure end use;

7.5.a.1.A.9. Air intrusion control;

7.5.a.1.A.10. Corrosion resistance;

7.5.a.1.A.11. Fill settlement;

7.5.a.1.A.12. Resistance to the refuse decomposition heat; and

7.5.a.1.A.13. Ability to isolate individual components or sections for repair or troubleshooting without shutting down the entire collection system.

7.5.a.1.B. The sufficient density of gas collection devices determined in paragraph 7.5.a.1 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.

7.5.a.1.C. The placement of gas collection devices shall control all gas producing areas, except as provided by paragraphs 7.5.a.1.C.1 and 7.5.a.1.C.2.

7.5.a.1.C.1. Any segregated area of asbestos or nondegradable material may be excluded from collection if documented per subdivision 7.10.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 Secretary upon request.

7.5.a.1.C.2. Any nonproductive area of the landfill may be excluded from control, provided that the owner or operator demonstrates that the total of all excluded areas contributes less than one percent (1%) of the total amount of NMOC emissions from the landfill. The owner or operator shall document the amount, location, and age of the material and provide that information to the Secretary upon the Secretary's request. The owner or operator shall make a separate NMOC emissions estimate for each section proposed for exclusion and shall compare the sum of all such sections to the NMOC emissions estimate for the entire landfill.

7.5.a.1.C.2.(a). The NMOC emissions from each section proposed for exclusion shall be calculated using Equation 1:

$$Q_i = 2kL_oM_i(e^{-kt_i})(C_{NMOC})(3.6 \times 10^{-9}) \qquad \text{(Eq. 1)}$$

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 section, years.
C_{NMOC} = Concentration of NMOC, ppm by volume.
3.6×10^{-9} = Conversion factor.

7.5.a.1.C.2.(b). If the owner or operator proposes to exclude or cease gas collection and control from nonproductive, physically separated (e.g., separately lined), closed areas that already have gas collection systems, the owner or operator shall calculate NMOC emissions from each physically separated closed area using either Equation 4 in section 7.6 or Equation 1.

7.5.a.1.C.3. The owner or operator shall use the values for k and C_{NMOC} determined by field testing if the owner or operator performed field testing to determine 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). If the owner or operator did not perform field testing, the owner or operator shall use the default values for k, L_o, and C_{NMOC} provided in section 7.6 or the alternative values from section 7.6. The owner or operator may subtract the mass of nondegradable solid waste contained within the given section from the total mass of the section when estimating emissions, provided that the owner or operator documents the nature, location, age, and amount of the nondegradable material per subparagraph 7.5.a.1.C.1.

7.5.a.2. To comply with subdivision 7.4.b, the owner or operator shall construct the gas collection devices using the following equipment or procedures:

7.5.a.2.A. The owner or operator shall construct the landfill gas extraction components of polyvinyl chloride (PVC), high density polyethylene (HDPE) pipe, fiberglass, stainless steel or other nonporous corrosion resistant material of suitable dimensions to:

7.5.a.2.A.1. Convey projected amounts of gases;

7.5.a.2.A.2. Withstand installation, static, and settlement forces; and

7.5.a.2.A.3. Withstand planned overburden or traffic loads.

7.5.a.2.A.4. The collection system shall extend as necessary to comply with emission and migration standards.

7.5.a.2.A.5. The 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. The perforations shall be situated to prevent excessive air infiltration.

7.5.a.2.B. Vertical wells shall:

7.5.a.2.B.1 Be placed to avoid endangering underlying liners; and

7.5.a.2.B.2. Shall address the occurrence of water within the landfill.

7.5.a.2.C. Holes and trenches constructed for piped wells and horizontal collectors shall be a sufficient cross-section to allow for their proper construction and completion including, for example, centering of pipes and placement of gravel backfill.

7.5.a.2.D. Collection devices shall be designed to prohibit indirect short circuiting of air into the cover or refuse into the collection system or gas into the air.

7.5.a.2.E. The dimension of any gravel used around pipe perforations shall be sized not to penetrate or block the perforations.

7.5.a.2.F. Collection devices may be connected to the collection header pipes below or above the landfill surface.

7.5.a.2.F.1. The connector assembly surface emission monitor shall include a positive closing throttle valve, any necessary seals and couplings, access couplings, and at least one sampling port.

7.5.a.2.F.2. The collection devices shall be constructed of PVC, HDPE, fiberglass, stainless steel or other nonporous material of suitable thickness to prevent discharge.

7.5.a.3. To comply with subdivision 7.4.c, the owner or operator shall convey the landfill gas

through header piping to a control system in compliance with subdivision 7.4.c. 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 and shall meet the following requirements:

7.5.a.3.A. For existing collection systems, the flow data shall be used to project the maximum flow rate. If flow data does not exist, follow the requirements in 7.5.a.3.B.

7.5.a.3.B. For new collection systems, the maximum flow rate shall comply with paragraph 7.7.a.1.

7.5.b. Operational standards for collection and control systems. -- Each owner or operator of an MSWL with a gas collection and control system used to comply with subdivisions 7.4.b and 7.4.c shall:

7.5.b.1. Operate the collection system such that gas is collected from each area, cell or group of cells in the MSWL that solid waste has been in place for:

7.5.b.1.A. Five years or more if active; or

7.5.b.1.B. Two years or more if closed or at final grade.

7.5.b.2. Operate the collection system with negative pressure at each wellhead except under the following conditions:

7.5.b.2.A. A fire or increased well temperature. The owner or operator shall record instances when positive pressure occurs in efforts to avoid a fire. The owner or operator shall submit these records with the annual reports per paragraph 7.9.h.

7.5.b.2.B. Use of a geomembrane or synthetic cover. The owner or operator shall develop acceptable pressure limits in the design plan to meet the requirements of 7.9.d.

7.5.b.2.C. A decommissioned well. A well may experience a static positive pressure after shut down to accommodate for declining flows. The owner or operator shall obtain approval from the Secretary for all design changes per subdivision 7.9.d.

7.5.b.3. The owner or operator shall operate each interior wellhead in the collection system with a landfill gas temperature less than 55 degrees Centigrade (131 degrees Fahrenheit). The owner or operator may establish a higher value operating temperature at a particular well if the owner or operator satisfies all criteria below:

7.5.b.3.a. The owner or operator shall submit a higher operating value demonstration to the Secretary; and

7.5.b.3.b. The supporting data shall demonstrate that the elevated parameter neither causes fires nor significantly inhibits anaerobic decomposition by killing methanogens; and

7.5.b.3.c. The Secretary approved the higher value operating temperature.

7.5.b.4. The owner or operator shall operate the collection system to maintain the methane concentration below 500 ppm above the background at the landfill surface. To determine if this level is exceeded, the owner or operator shall:

7.5.b.4.A. Conduct surface testing using an organic vapor analyzer, flame ionization detector or other portable monitor meeting the specifications in subdivision 7.7.d.;

7.5.b.4.B. Conduct surface testing around the perimeter of the collection area and along a pattern that traverses the landfill at no more than 30-meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover and all cover penetrations;

7.5.b.4.C. Monitor any openings that are within an area of the landfill where waste has been placed and a gas collection system is required; and

7.5.b.4.E. Develop a surface monitoring design plan that includes a topographical map with the monitoring route and the rationale for any site-specific deviations from the 30-meter intervals.

7.5.b.4.F. To determine if the level established in 7.5.b.4. is exceeded, the owner or operator may:

7.5.b.4.F.1 Establish an alternative traversing pattern that ensures equivalent coverage.; and

7.5.b.4.F.2. Exclude from the surface testing areas with steep slopes or other dangerous areas.

7.5.b.5. Vent all collected gases to a control system designed and operated in compliance with subdivision 7.4.c. In the event the collection or control system stops operating, the owner or operator shall:

7.5.b.5.A. Shut down the gas mover system; and

7.5.b.5.B. Close all valves in the collection and control system contributing to venting of the gas to the atmosphere within one hour of the collection or control system not operating.

7.5.b.6. Operate the control system at all times when the collected gas is routed to the system.

7.5.b.7. Take corrective action as specified in paragraphs 7.7.a.3 and 7.7.a.4 or subdivision 7.7.c if monitoring demonstrates that the operational requirements in paragraphs 7.5.b.2, 7.5.b.3, or 7.5.b.4 are not satisfied. If the owner or operator takes corrective actions per subsection 7.7, the Secretary shall not consider the monitored exceedance a violation of the operational requirements in this section.

7.6. Testing requirements

7.6.a. NMOC emission rate:

7.6.a.1. The owner or operator shall calculate the NMOC emission rate using either Equation 2 or Equation 3 below:

7.6.a.2. The owner or operator may use both Equation 2 and Equation 3 if:

7.6.a.2.A. The owner or operator knows the actual year-to-year solid waste acceptance rate for part of the life of the landfill; or

7.6.a.2.B. The owner or operator does not know the actual year-to-year solid waste acceptance rate for part of the life of the landfill.

7.6.a.3. The owner or operator shall use the following values in both Equation 2 and Equation 3:

7.6.a.3.A. k is 0.05 per year,

7.6.a.3.B. L_o is 170 cubic meters per megagram and

7.6.a.3.C. C_{NMOC}. is 4,000 ppm by volume as hexane

7.6.a.3.D. If the landfill is located in geographical areas with a 30-year annual average precipitation of less than 25 inches, as measured at the nearest representative official meteorological site, the k value is 0.02 per year.

7.6.a.4. The owner or operator shall use Equation 2 if it knows the actual year-to-year solid waste acceptance rate. When calculating the value for M_i, the owner or operator may subtract the mass of nondegradable solid waste from the total mass of solid waste in a particular section of the landfill, if the owner or operator maintains documentation of the nature and amount of such wastes.

$$M_{NMOC} = \sum_{i=1}^{n} 2kL_oM_i\left(e^{-kt_i}\right)(C_{NMOC})(3.6\ x\ 10^{-9}) \qquad Equation\ 2$$

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, ppm by volume as hexane.
3.6×10^{-9} = Conversion factor.

7.6.a.5. The owner or operator shall use Equation 3 if it knows the actual year-to-year solid waste acceptance rate. When calculating the value of R, the owner or operator may subtract the mass of nondegradable solid waste from the total mass of solid waste in a particular section of the landfill, if the owner or operator maintains documentation of the nature and amount of such wastes.

$$M_{NMOC} = 2L_oR\left(e^{-kc} - e^{-kt}\right)C_{NMOC}(3.6\ x\ 10^{-9}) \qquad Equation\ 3$$

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, ppm by volume as hexane.
c = Time since closure, years; for an active landfill c = 0 and e^{-kc} = 1.
3.6×10^{-9} = Conversion factor.

7.6.a.6. Tier 1 procedures. -- The owner or operator shall compare the calculated NMOC mass emission rate to the standard of 34 megagrams per year:

7.6.a.6.A. If the owner or operator calculates the NMOC emission rate by the methods specified in paragraphs 7.6.a.1 through 7.6.a.3 and it is less than 34 megagrams per year, then the owner or operator shall submit an NMOC emission rate report according to subdivision 7.9.c. below and shall recalculate the NMOC mass emission rate annually as required by subdivision 7.4.e.

7.6.a.6.B. If the owner or operator calculates the NMOC emission rate by the methods specified in paragraphs 7.6.a.1 through 7.6.a.3 and it is equal to or greater than 34 megagrams per year, then the owner or operator shall either:

7.6.a.6.B.1. Submit a gas collection and control system design plan within one year as specified in subdivision 7.9.d and install and operate a gas collection and control system within 30 months according to subdivisions 7.4.b and 7.4.c; or

7.6.a.6.B.2. Determine a site-specific NMOC concentration and recalculate the NMOC emission rate using the Tier 2 procedures in paragraph 7.6.a.7; or

7.6.a.6.B.3. Determine a site-specific methane generation rate constant and recalculate the NMOC emission rate using the Tier 3 procedures in paragraph 7.6.a.9.

7.6.a.7. Tier 2 -- NMOC Calculation. The owner or operator shall determine the site specific NMOC concentration using the following sampling procedure:

7.6.a.7.A. Install a minimum of two sample probes per hectare, evenly distributed over the landfill surface that has retained waste for at least two years;

7.6.a.7.B. If the landfill is larger than 25 hectares in area, the owner or operator is required to take only 50 samples, with the probes evenly distributed across the sample area;

7.6.a.7.C. The owner or operator should locate the sample probes so as to avoid known areas of nondegradable solid waste;

7.6.a.7.D. 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 40 CFR Part 60, Appendix A and 45CSR16;

7.6.a.7.E. The owner or operator may take composite samples from different probes into a single cylinder: provided, that the owner or operator takes equal sample volumes from each probe and:

7.6.a.7.E.1. The owner or operator shall record the sampling rate, collection times, beginning and ending cylinder vacuums or alternative volume measurements for each composite to verify that composite volumes are equal;

7.6.a.7.E.2. Composite sample volumes should not be less than one liter unless the owner or operator can provide evidence to substantiate the accuracy of smaller volumes; and

7.6.a.7.E.3. The owner or operator shall terminate compositing before the cylinder approaches ambient pressure when the measurement accuracy diminishes.

7.6.a.7.F. If the owner or operator takes more than the required number of samples, the owner or operator shall use all samples in the analysis.

7.6.a.7.G. The owner or operator shall divide the NMOC concentration from Method 25 or 25C by six to convert from C_{NMOC} as carbon to C_{NMOC} as hexane.

7.6.a.7.H. If the landfill has an active or passive gas removal system in place, the owner or operator may collect Method 25 or 25C samples from these systems instead of surface probes: provided, that the owner or operator can demonstrate that the removal system sampling is as representative as the two sampling probe per hectare requirement of subparagraph 7.6.a.7.A.

7.6.a.7.I. If the landfill has active collection systems, the owner or operator may collect samples from the common header pipe according to the following:

7.6.a.7.I.1. The owner or operator shall use a sample location upstream from any gas moving, condensate removal or treatment system equipment; and

7.6.a.7.I.2. The owner or operator shall collect a minimum of three samples.

7.6.a.8. Tier 2 procedures.

7.6.a.8.A. The owner or operator shall submit the NMOC concentration results and the NMOC mass emission rate per paragraph 7.9.j.2 within 60 days from the date the owner or operator determined the NMOC concentration and corresponding NMOC emission rate.

7.6.a.8.B. The owner or operator shall recalculate the NMOC mass emission rate using Equation 2 or Equation 3 using the average site-specific NMOC concentration from the collected samples instead of the default value provided in paragraph 7.6.a.3.

7.6.a.8.C. If the resulting NMOC mass emission rate is less than 34 megagrams per year, the owner or operator shall submit an estimate of NMOC emissions in the NMOC emission rate report according to subdivision 7.9.c and shall recalculate the NMOC mass emission rate annually per subdivision 7.4.e. The owner or operator shall retest the site-specific NMOC concentration every five years using the methods specified in subsection 7.6.

7.6.a.8.D. If the owner or operator calculates the NMOC mass emission rate using the Tier 2 site specific NMOC concentration and it is equal to or greater than 34 megagrams per year, the owner or operator shall either:

7.6.a.8.D.1. Submit a gas collection and control system design plan within one year per subdivision 7.9.d and install and operate a gas collection and control system within 30 months per subdivisions 7.4.b and 7.4.c;

7.6.a.8.D.2. Determine a site-specific methane generation rate constant and recalculate the NMOC emission rate using the site specific methane generation rate using the Tier 3 procedures specified in paragraph 7.6.a.9.; and

7.6.a.8.D.3. Conduct a surface emission monitoring demonstration using the Tier 4 procedures specified in paragraph 7.6.a.11.

7.6.a.9. Tier 3. -- Site specific methane generate rate constant. The owner or operator shall:

7.6.a.9.A. Determine the site-specific methane generation rate constant using the procedures in Method 2E of 40 CFR Part 60, Appendix A and 45CSR16;

7.6.a.9.B. Estimate the NMOC mass emission rate using Equation 2 or Equation 3 with the site-specific methane generation rate constant and the site-specific NMOC concentration as determined in paragraph 7.6.a.7;

7.6.a.9.C. Compare the resulting NMOC mass emission rate to the standard of 34 megagrams per year;

7.6.a.9.D. If the NMOC mass emission rate calculated using the Tier 2 site specific NMOC concentration and the Tier 3 site specific methane generation rate is equal to or greater than 34 megagrams per year, either:

7.6.a.9.D.1. Submit a gas collection and control system design plan within one year as per subdivision 7.9.d and install and operate a gas collection and control system within 30 months according to subdivisions 7.4.b and 7.4.c; or

7.6.a.9.D.2. Conduct a surface emission monitoring demonstration using the Tier 4 procedures specified in paragraph 7.6.a.11.

7.6.a.9.E. If the NMOC mass emission rate is less than 34 megagrams per year, the owner or operator shall:

7.6.a.9.E.1. Recalculate the NMOC mass emission rate annually using Equation 2 or Equation 3, using the site-specific Tier 2 NMOC concentration and the Tier 3 methane generation rate constant; and

7.6.a.9.E.2. Submit the NMOC emission rate report per subdivision 7.9.c.

7.6.a.9.F. Use the value obtained for the methane generation rate constant in all subsequent annual NMOC emission rate calculations. The methane generation rate constant is calculated only once.

7.6.a.10. Other methods. -- The owner or operator may use other methods to determine the NMOC concentration or a site specific methane generation rate constant as an alternative to the methods required by paragraphs 7.6.a.3 and 7.6.a.4 if the Administrator approved the method in advance.

7.6.a.11. Tier 4. -- Surface emission monitoring demonstration.

7.6.a.11.A. Applicability. The owner or operator shall only use Tier 4 procedures if the unit can demonstrate the following:

7.6.a.11.A.1. Surface methane emissions are below 500 ppm;

7.6.a.11.A.2. NMOC emissions are greater than or equal to 34 Mg/yr but less than 50 Mg/yr using Tier 1 or Tier 2 procedures;

7.6.a.11.A.3. The landfill meets the requirements of subparagraph 7.6.a.11.J below; and

7.6.a.11.A.4. NMOC emissions are less than 50Mg/yr as indicated by both Tier 1 and Tier 2; if NMOC emissions are greater than 50Mg/yr, the owner or operator shall not use Tier 4.

7.6.a.11.B. The owner or operator shall conduct surface emission monitoring quarterly according to the requirements in paragraph 7.6.a.11.

7.6.a.11.C. The owner or operator shall measure methane surface concentrations using an organic vapor analyzer, flame ionization detector or other portable monitor that meets the requirements of subdivision 7.7.d along the entire perimeter of the landfill and along a pattern that traverses the landfill at less than 30 meter intervals.

7.6.a.11.D. The owner or operator shall determine the background concentration by moving the probe inlet upwind and downwind at least 30 meters from the waste mass boundary of the landfill.

7.6.a.11.E. The owner or operator shall perform surface emission monitoring per Section

8.3.1 of Method 21 of 40 CFR Part 60, Appendix A and 45CSR16, except that the probe inlet shall be placed no more than five centimeters above the landfill surface and measured with a mechanical device such as a wheel on a pole.

7.6.a.11.E.1. The owner or operator shall use a wind barrier, similar to a funnel, when onsite average wind speed exceeds four miles per hour or two meters per second or gusts exceeding ten miles per hour. The owner or operator shall also determine average on-site wind speed in an open area at five minute intervals using an on-site anemometer with a continuous recorder and data logger for the entire duration of the monitoring event. The wind barrier shall surround the surface emission monitor and shall be placed on the ground to ensure wind turbulence is blocked. The owner or operator shall not conduct surface emission monitoring if average wind speed exceeds 25 miles per hour.

7.6.a.11.E.2. The owner or operator shall monitor landfill surface areas using a device that meets the specifications of subdivision 7.7.d where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover, and all cover penetrations.

7.6.a.11.F. The owner or operator shall maintain records of surface emission monitoring per subdivision 7.10.g and submit a Tier 4 surface emissions report per subparagraph 7.9.d.4.C.

7.6.a.11.G. The owner or operator shall submit a gas collection and control system design plan if there is any measured methane 500 ppm or greater from the surface of the landfill within one year of the first measured methane concentration of 500 ppm or greater from the surface of the landfill according to subdivision 7.9.d. The owner or operator shall install and operate a gas collection and control system according to subdivisions 7.4.b and 7.4.c within 30 months of the most recent NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year based on Tier 2 requirements.

7.6.a.11.H. After four consecutive quarterly monitoring periods at a landfill, other than a closed landfill, if there is no measured methane concentration of 500 ppm or greater from the landfill surface, the owner or operator shall continue quarterly surface emission monitoring per Tier 4 requirements.

7.6.a.11.I. After four consecutive quarterly monitoring periods at a closed landfill, if there is no measured methane concentration of 500 ppm or greater from the landfill surface, the owner or operator shall conduct annual surface emission monitoring using the Tier 4 methods.

7.6.a.11.J. If the owner or operator installed and operated a collection and control system that is not required by section 7, then the collection and control system shall meet the following criteria:

7.6.a.11.J.1. Preceding the Tier 4 surface emissions monitoring demonstration, the gas collection and control system shall have operated for a minimum 6,570 out of 8,760 hours; and

7.6.a.11.J.2. During the Tier 4 surface emissions monitoring demonstration, the gas collection and control system shall operate as it would normally to collect and control as much landfill gas as possible.

7.6.b. The owner or operator shall calculate the NMOC emission rate after the installation and startup of a collection and control system to determine when the system can be capped, removed or decommissioned per subdivision 7.4.f, using Equation 4:

$$M_{NMOC} = 1.89 \ x \ 10^{-3} Q_{LFG} C_{NMOC} \qquad Equation\ 4$$

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, ppm by volume as hexane.

7.6.b.1. The owner or operator shall determine the flow rate of landfill gas, Q_{LFG}, by measuring the total landfill gas flow rate at the common header pipe leading to the control system using a gas flow measuring device calibrated per Section 10 of Method 2E of 40 CFR Part 60, Appendix A and 45CSR16.

7.6.b.2. The owner or operator shall determine the average NMOC concentration, C_{NMOC}, by collecting and analyzing landfill gas sampled from the common header pipe prior to the gas moving or condensate removal equipment per Method 25 or 25C of 40 CFR Part 60, Appendix A and 45CSR16. The sample location on the common header pipe shall be prior to any condensate removal or other gas refining units. The owner or operator shall divide the NMOC concentration from Method 25 or 25C by six to convert from C_{NMOC} as carbon to C_{NMOC} as hexane.

7.6.b.3. The owner or operator may use another method to determine:

7.6.b.3.A. Landfill gas flow rate if the owner or operator received prior approval for the alternate method by the Administrator; and

7.6.b.3.B. NMOC concentration if the owner or operator received prior approval for the alternate method by the Administrator.

7.6.b.4. The owner or operator shall submit the results from Equation 4 within 60 days after the date of calculating the NMOC emission rate per paragraph 7.9.j.2.

7.6.c. When calculating emissions for Prevention of Significant Deterioration purposes, the owner or operator shall estimate the NMOC emission rate for comparison to the Prevention of Significant Deterioration major source and significance levels in 45CSR14 using the Compilation of Air Pollutant Emission Factors, Volume I: Stationary Point and Area Sources (AP-42) or other approved measurement procedures.

7.6.d. For the performance test required by paragraph 7.4.c.2, the owner or operator shall calculate the net heating value of the combusted landfill gas as determined in 40 CFR § 60.18(f)(3) and 45CSR16 from the methane concentration in the landfill gas as measured by Method 3C. The owner or operator shall take a minimum of three 30-minute Method 3C samples, but need not take the measurement of other organic components, hydrogen, and carbon monoxide. The owner or operator may use Method 3C determine the landfill gas molecular weight for calculating the flare gas exit velocity under 40 CFR § 60.18(f)(4).

7.6.e. For the performance test required by paragraph 7.4.c.2, the owner or operator shall use Method 25 or 25C (the owner or operator may use Method 25C at the inlet only) of 40 CFR Part 60, Appendix A and 45CSR16 to determine compliance with the 98 weight-percent efficiency or the 20 ppm by volume outlet NMOC concentration level, unless the owner or operator received prior approval by the Administrator for an alternative method per paragraph 7.9.d.2. The owner or operator shall use Method 3, 3A or 3C to determine oxygen for correcting the NMOC concentration as hexane to three percent. In cases where the outlet concentration is less than 50 ppm NMOC as carbon (eight ppm NMOC as hexane), the owner or operator shall use Method 25A in place of Method 25. The owner or operator may use Method 18 in conjunction with Method 25A on a limited basis (compound specific, e.g., methane) or Method 3C to determine methane. The owner or operator shall subtract methane as carbon from the Method 25A total hydrocarbon value as carbon to give NMOC concentration as carbon. The owner or

operator shall divide the NMOC concentration as carbon by six to convert the C_{NMOC} as carbon to C_{NMOC} as hexane. The owner or operator shall use Equation 5 to calculate efficiency:

$$Control\ Efficiency = \frac{(NMOC_{in} - NMOC_{out})}{(NMOC_{in})} \qquad Equation\ 5$$

Where:
$NMOC_{in}$ = Mass of NMOC entering control device.
$NMOC_{out}$= Mass of NMOC exiting control device.

7.6.f. Within 60 days after the date of completing each performance test according to subdivisions 7.6.d and 7.6.e, the owner or operator shall submit the performance test results required by subdivision 7.6.b or 7.6.d, including any associated fuel analyses per paragraph 7.9.j.1.

7.7. Compliance requirements.

7.7.a. The owner or operator shall use the specified methods in subdivisions 7.7.a.1 through 7.7.a.6, except as provided in paragraph 7.9.d.2, to determine whether the gas collection system is in compliance with paragraph 7.4.b.2.

7.7.a.1. To determine compliance with subparagraph 7.4.b.2.A, the owner or operator shall use either Equation 6 or Equation 7 to calculate the maximum expected gas generation flow rate from the landfill. The owner or operator shall use the methane generation rate constant (k) and methane generation potential (L_o) kinetic factors published in the most recent AP-42 or other site specific values the owner or operator has demonstrated to be appropriate and that the Secretary has approved. The owner or operator shall use the value of k determined from the test if k was determined as specified in paragraph 7.6.a.9. The owner or operator shall use a value of no more than 15 years 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.

7.7.a.1.A. For sites with unknown year-to year solid waste acceptance rate:

$$Q_m = 2L_o\, R\left(e^{-kc} - e^{-kt}\right) \qquad Equation\ 6$$

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 = 0 and e^{-kc} =1).

7.7.a.1.B. For sites with known year-to-year solid waste acceptance rate:

$$Q_m = \sum_{i=1}^{n} 2kL_o\, M_i\left(e^{-kt_i}\right) \qquad Equation\ 7$$

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.

7.7.a.1.C. The owner or operator may use the actual flow data to project the maximum expected gas generation flow rate instead of, or in conjunction with, Equation 6 or Equation 7 if the owner or operator installed a collection and control system. If the landfill is still accepting waste, the actual measured flow data will not equal the maximum expected gas generation rate, so the owner or operator shall use calculations using Equation 6 or Equation 7 or other methods to predict the maximum expected gas generation rate over the intended period of use of the gas control system equipment.

7.7.a.2. To demonstrate compliance with subparagraph 7.4.b.2.B determining the sufficient density of gas collectors, the owner or operator shall design a system of vertical wells, horizontal collectors or other collection devices satisfactory to the Secretary that is capable of controlling and extracting gas from all portions of the landfill sufficient to meet all operational and performance standards.

7.7.a.3. To demonstrate compliance with subparagraph 7.4.b.2.C, the owner or operator shall measure gauge pressure in the gas collection header applied to each individual well monthly to determine whether the gas collection system flow rate is sufficient. If a positive pressure exists, the owner or operator shall initiate action to correct the exceedance within five calendar days, except for the three conditions allowed under subdivision 7.5.b.2 below. The owner or operator shall not cause exceedances of other operational or performance standards by use of any attempted corrective measure.

7.7.a.3.A. If negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement of positive pressure, the owner or operator shall conduct a root cause analysis and correct the exceedance as soon as practicable, but not later than 60 days after the first measure of positive pressure. The owner or operator shall keep records per paragraph 7.10.e.3 below.

7.7.a.3.B. If the owner or operator cannot fully implement corrective actions within 60 days following the positive pressure measurement for which the root cause analysis was required, the owner or operator shall conduct a corrective action analysis and develop an implementation schedule to complete the corrective action(s) as soon as practicable, but no more than 120 days following the positive pressure measurement. The owner or operator shall keep records per paragraph 7.10.e.4 below and submit the items required by paragraph 7.9.h.7 in the next annual report.

7.7.a.3.C. If the owner or operator expects corrective action to take longer than 120 days after the initial exceedance to complete, the owner or operator shall submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the Secretary according to paragraphs 7.9.h.7 and 7.9.k and keep records according to paragraph 7.10.e.5.

7.7.a.4. To determine whether excess air infiltration into the landfill is occurring, the owner or operator shall monitor each well monthly for temperature according to paragraph 7.5.b.3 above. If a well exceeds the operating parameter for temperature, the owner or operator shall initiate action to correct the exceedance within five calendar days. Attempted corrective measures shall not cause exceedances of other operational or performance standards.

7.7.a.4.A. If the owner or operator cannot achieve a landfill gas temperature less than 55 degrees Celsius (131 degrees Fahrenheit) within 15 calendar days of the first measurement of landfill gas temperature greater than 55 degrees Celsius (131 degrees Fahrenheit), the owner or operator shall conduct a root cause analysis and correct the exceedance as soon as practicable, but no later than 60 days after the first measurement of landfill gas temperature greater than 55 degrees Celsius (131 degrees Fahrenheit). The owner or operator shall maintain records per paragraph 7.10.e.3 below.

7.7.a.4.B. If the owner or operator cannot fully implement corrective actions within 60 days following the measurement for which the root cause analysis was required, the owner or operator shall also conduct a corrective action analysis and develop an implementation schedule to complete the corrective action(s) as soon as practicable, but no more than 120 days following the measurement of landfill gas temperature greater than 55 degrees Celsius (131 degrees Fahrenheit). The owner or operator shall maintain records per paragraph 7.10.e.4 and submit the information listed in paragraph 7.9.h.7 in the next annual report.

7.7.a.4.C. If the owner or operator expects corrective action to take longer than 120 days after the initial exceedane to complete, the owner or operator shall submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the Secretary according to paragraph 7.9.h.7 and subdivision 7.9.k and maintain records per paragraph 7.10.e.5.

7.7.a.5. An owner or operator seeking to demonstrate compliance with subparagraph 7.4.b.2.D through the use of a collection system that does not meet the specifications of subdivision 7.5.a shall provide information satisfactory to the Administrator according to paragraph 7.9.d.3 demonstrating that the owner or operator is controlling off-site migration.

7.7.b. To comply with paragraph 7.5.b.1, the owner or operator shall place each well or design component as specified in the approved design plan per subdivision 7.9.d. The owner or operator shall install each well no later than 60 days after the date on which the initial solid waste has been in place for a period of:

7.7.b.1. Five years or more if active; or

7.7.b.2. Two years or more if closed or at final grade.

7.7.c. To comply with the surface methane operational standard of paragraph 7.5.b.4, the owner or operator shall follow the procedures listed below:

7.7.c.1. Monitor surface concentrations of methane along the entire perimeter of the collection area and along a pattern that traverses the landfill at no more than 30 meter intervals (or a site-specific established spacing), after installation and startup of the gas collection system, for each collection area on a quarterly basis using an organic vapor analyzer, flame ionization detector or other portable monitor that meets the specifications in subdivision 7.7.d;

7.7.c.2. Determine the background concentration 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;

7.7.c.3. Monitor surface emissions during typical meteorological conditions and according to Section 8.3.1 of Method 21 of 40 CFR Part 60, Appendix A and 45CSR16, except that the probe inlet shall be placed within five to ten centimeters of the ground;

7.7.c.4. Record any reading of 500 ppm or more above background at any location as a monitored exceedance and take the actions specified below. If the owner or operator takes the below-specified actions, the Secretary shall not consider the exceedance a violation of the operational requirements of paragraph 7.5.b.4. The owner or operator shall:

7.7.c.4.A. Mark the location of each monitored exceedance and record the location and concentration by determining location using the latitude and longitude coordinates found by an instrument with an accuracy of at least found meters and written in decimal degrees with at least five decimal places;

7.7.c.4.B. Perform cover maintenance or adjust the vacuum of the adjacent wells to increase gas collection in the vicinity of each exceedance and re-monitor the location within ten calendar

days of detecting the exceedance;

7.7.c.4.C. Take additional corrective action if the re-monitoring of the location shows a second exceedance and monitor the location again within ten days of the second exceedance. If the re-monitoring shows a third exceedance for the same location, stop monitoring and take the action specified under subparagraph 7.7.c.4.E;

7.7.c.4.D. Re-monitor one month from the initial exceedance any location that initially showed an exceedance but has a methane concentration less than 500 ppm methane above background at the ten-day re-monitoring specified above. If the one month re-monitoring shows a concentration less than 500 ppm above background, then the owner or operator is not required to perform further monitoring of that location until the next quarterly monitoring period. If the one-month re-monitoring shows an exceedance, the owner or operator shall take the actions specified under subparagraphs 7.7.c.4.C or 7.7.c.4.E; and

7.7.c.4.E. For any location where monitored methane concentration equals or exceeds 500 ppm above background three times within a quarterly period, the owner or operator shall install a new well or other collection device within 120 calendar days of the initial exceedance. The owner or operator may submit to the Secretary for approval an alternative solution to the exceedance, such as upgrading the blower, header pipes or control device, and a corresponding timeline for installation.

7.7.c.5. Implement a program to monitor cover integrity on a monthly basis and implement cover repairs as necessary.

7.7.d. The owner or operator shall meet the following instrumentation specifications and procedures for surface emission monitoring devices to comply with the provisions in subdivision 7.7.c or paragraph 7.6.a.11:

7.7.d.1. The portable analyzer shall meet the instrument specifications of Section 6 of Method 21 of 40 CFR Part 60, Appendix A and 45CSR16 except that "methane" replaces all references to "VOC";

7.7.d.2. The calibration gas shall be methane, diluted to a nominal concentration of 500 ppm in air;

7.7.d.3. To meet the performance evaluation requirements in Section 8.1 of Method 21 of 40 CFR Part 60, Appendix A and 45CSR16, use the instrument evaluation procedures of Section 8.1 of Method 21; and

7.7.d.4. Follow the calibration procedures in Sections 8 and 10 of Method 21 of 40 CFR Part 60, Appendix A and 45CSR16 immediately before starting a surface monitoring survey.

7.8. Monitoring requirements.

7.8.a. To comply with paragraph 7.4.b.2 for an active gas collection system, the owner or operator shall install a sampling port and a thermometer, other temperature measuring device or an access port for temperature measurements at each wellhead and:

7.8.a.1. Measure the gauge pressure in the gas collection header monthly per paragraph 7.7.a.3; and

7.8.a.2. Monitor nitrogen or oxygen concentration in the landfill gas monthly as follows:

7.8.a.2.A. Determine the nitrogen level using Method 3C, unless the owner or operator

establishes an alternative test method as allowed by paragraph 7.9.d.2;

7.8.a.2.B. Determine the oxygen level using an oxygen meter using Method 3A, 3C or ASTM D6522-11 (if sample location is prior to combustion) unless the owner or operator establishes an alternative test method as allowed by paragraph 7.9.d.2, except that:

7.8.a.2.B.1. The span shall be set between ten percent and 12% oxygen;

7.8.a.2.B.2. A data recorder is not required;

7.8.a.2.B.3. Only two calibration gases are required, a zero and span;

7.8.a.2.B.4. A calibration error check is not required; and

7.8.a.2.B.5. The allowable sample bias, zero drift, and calibration drift are plus or minus 10 percent.

7.8.a.2.C. Use a portable gas composition analyzer to monitor the oxygen levels: provided, that:

7.8.a.2.C.1. The analyzer is calibrated; and

7.8.a.2.C.2. The analyzer meets all quality assurance and quality control requirements for Method 3A or ASTM D6522-11.

7.8.a.3. Monitor the temperature of the landfill gas on a monthly basis per paragraph 7.7.a.4, calibrating the temperature measuring device annually using the procedure in Section 10.3 of Method 2 of 40 CFR Part 60, Appendix A-1 and 45CSR16.

7.8.b. If the owner or operator seeks to comply with subdivision 7.4.c using an enclosed combustor, the owner or operator shall calibrate, maintain, and operate the following equipment according to the manufacturer's specifications:

7.8.b.1. A temperature monitoring device equipped with a continuous recorder and having a minimum accuracy of plus or minus one percent of the temperature being measured expressed in degrees Celsius or plus or minus 0.5 degrees Celsius, whichever is greater. A temperature monitoring device is not required for boilers or process heaters with design heat input capacity equal to or greater than 44 megawatts;

7.8.b.2. For a device that records flow to the control device and bypass of the control device (if applicable), the owner or operator shall:

7.8.b.2.A. Install, calibrate, and maintain a gas flow rate measuring device that records the flow to the control device at least every 15 minutes; and

7.8.b.2.B. Secure the bypass line valve in the closed position with a car-seal or a lock and key type configuration, performing a visual inspection of the seal or closure mechanism at least once every month to ensure that the valve is maintained in the closed position and the gas flow is not diverted through the bypass line.

7.8.c. If the owner or operator chooses to comply with subdivision 7.4.c using a non-enclosed flare, the owner or operator shall install, calibrate, maintain, and operate the following equipment according to the manufacturer's specifications:

7.8.c.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;

7.8.c.2. For a device that records flow to the flare and bypass of the flare (if applicable), the owner or operator shall:

7.8.c.2.A. Install, calibrate, and maintain a gas flow rate measuring device that records the flow to the control device at least every 15 minutes; and

7.8.c.2.B. Secure the bypass line valve in the closed position with a car-seal or a lock and key type configuration, performing a visual inspection of the seal or closure mechanism 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.

7.8.d. If the owner or operator chooses to comply with subdivision 7.4.c using a device other than a non-enclosed flare or an enclosed combustor or a treatment system, the owner or operator shall provide information per paragraph 7.9.d.2 to the Administrator that describes 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 the owner or operator submit additional information. The Administrator may specify additional appropriate monitoring procedures.

7.8.e. If the owner or operator chooses to install a collection system that does not meet the specifications of subdivision 7.5.a or seeks to monitor alternative parameters to those required by subdivisions 7.5.b, 7.6, 7.7, and 7.8, the owner or operator shall provide information satisfactory to the Administrator as provided in paragraphs 7.9.d.2 and 7.9.d.3 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.

7.8.f. To demonstrate compliance with the 500 ppm surface methane operational standard in paragraph 7.5.b.4, the owner or operator shall monitor surface concentrations of methane according to the requirements of subdivision 7.7.c and the instrument specifications of subdivision 7.7.d. The owner or operator may change to annual monitoring of any closed landfill that does not have monitor exceedances of the operational standard in three consecutive quarterly monitoring periods. If the owner or operator detects any methane reading of 500 ppm or more above background during the annual monitoring, the owner or operator shall resume quarterly monitoring.

7.8.g. To demonstrate compliance with the control system requirements in subdivision 7.4.c using a landfill gas treatment system, the owner or operator shall maintain and operate all monitoring systems associated with the treatment system according to the site-specific treatment system monitoring plan per subparagraph 7.10.b.5.B. The owner or operator shall calibrate, maintain, and operate a device that records flow to the treatment system and bypass of the treatment system, if applicable, according to the manufacturer's specifications by:

7.8.g.1. Installing, calibrating, and maintaining a gas flow rate measuring device that records the flow to the treatment system at least every 15 minutes; and

7.8.g.2. Securing the bypass line valve in the closed position with a car-seal or a lock and key type configuration, performing a visual inspection of the seal or closure mechanism 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.

7.8.h. The monitoring requirements of subdivisions 7.8.b, 7.8.c, 7.8.d, and 7.8.g apply at all times the affected source is operating, except for periods of monitoring system malfunctions, repairs

associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. The owner or operator is required to complete monitoring system repairs in response to monitoring system malfunctions and to return the monitoring system to operation as expeditiously as practicable.

7.9. Reporting requirements.

7.9.a. Design capacity report. -- The owner or operator shall submit the initial design capacity report no later than one year from the effective date of this rule. The initial design capacity report shall contain the following information:

7.9.a.1. 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; and

7.9.a.2. The maximum design capacity of the landfill. If the permit specifies the maximum design capacity, the owner or operator may submit a copy of the permit specifying the maximum design capacity as part of the report. If the permit does not specify the maximum design capacity of the landfill, the owner or operator shall calculate the maximum design capacity using good engineering practices. The owner or operator shall provide the calculations, along with the relevant parameters, as part of the report. The owner or operator may calculate design capacity in either megagrams or cubic meters for comparison with the exemption values. If the owner or operator chooses to convert the design capacity from volume to mass or from mass to volume to demonstrate the design capacity is less than 2.5 million megagrams or 2.5 million cubic meters, the calculation shall include a site-specific density, which the owner or operator shall recalculate annually. The owner or operator shall document any density conversions and submit them with the design capacity report. The Secretary may request other reasonable information as may be necessary to verify the maximum design capacity of the landfill.

7.9.b. Amended design capacity report. -- The owner or operator shall submit an amended design capacity report to provide notification of an increase of the landfill maximum design capacity within 90 days of a maximum design capacity that meets or exceeds 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 by subdivision 7.10.f.

7.9.c. NMOC emission rate report. -- For existing MSWLs with a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters, the owner or operator shall submit the NMOC emission rate report per paragraph 7.9.j.2 no later than one year from the effective date of this rule. The owner or operator shall submit the NMOC emission rate report to the Secretary annually per paragraph 7.9.j.2, except as provided for in paragraph 7.9.c.3. The Secretary may request additional information as may be necessary to verify the reported NMOC emission rate. The NMOC emission rate report shall:

7.9.c.1. Contain an annual or five-year estimate of the NMOC emission rate calculated using the formula and procedures in subdivisions 7.6.a or 7.6.b, as applicable; and

7.9.c.2. Include all the data, calculations, sample reports, and measurements used to estimate the annual or five year emissions.

7.9.c.3. The owner or operator may follow the requirements in paragraph 7.9.j.2 and submit an estimate of the NMOC emission rate for the next five-year period in lieu of the annual report if the estimated NMOC emission rate in the annual report is less than 34 megagrams per year in each of five consecutive years. This estimate shall include the current amount of solid waste in place and the

estimated waste acceptance rate for each year of the five years for which an NMOC emission rate is estimated. The owner or operator shall submit to the Secretary all data and calculations upon which it based this estimate. The owner or operator shall revise this estimate at least once every five years. If the actual waste acceptance rate exceeds the estimated waste acceptance rate in any year reported in the five year estimate, the owner or operator shall submit to the Secretary a revised five-year estimate, which shall cover the five-year period beginning with the year in which the actual waste acceptance rate exceeded the estimated waste acceptance rate.

7.9.c.4. The owner or operator is exempt from the requirement to submit an NMOC emission rate report after it installs a collection and control system that complies with subdivisions 7.4.b and 7.4.c during the time the collection and control system is in operation and complies with subdivision 7.5.b and subsection 7.7.

7.9.d. Collection and control system design plan. -- The owner or operator shall prepare the collection and control system design plan, which shall be approved by a professional engineer and shall meet the following requirements:

7.9.d.1. The collection and control system described in the design plan shall meet the design requirements of subdivisions 7.4.b and 7.4.c.;

7.9.d.2. 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 subdivision 7.5.b and subsections 7.6 through 7.10 proposed by the owner or operator;

7.9.d.3. The collection and control system design plan shall either conform to specifications for active collection systems in subdivision 7.5.a or include a demonstration of sufficiency for the alternative provisions to subdivision 7.5.a that is satisfactory to the Administrator;

7.9.d.4. Each owner or operator of a MSWL having a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters shall submit to the Secretary, within one year of the first NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year, a copy of the collection and control system design plan cover page that contains the professional engineer's seal, except as follows:

7.9.d.4.A. If the owner or operator elects to recalculate the NMOC emission rate after the Tier 2 NMOC sampling and analysis in paragraph 7.6.a.9 and the resulting rate is less than 34 megagrams per year, the owner or operator shall resume annual periodic reporting using the Tier 2 determined site-specific NMOC concentration, until the calculated NMOC emission rate is equal to or greater than 34 megagrams per year or the owner or operator closes the landfill. The owner or operator shall submit, per paragraph 7.9.j.2 and within 180 days of the first calculated exceedance of 34 megagrams per year, the revised NMOC emission rate report with the recalculated NMOC emission rate based on NMOC sampling and analysis.

7.9.d.4.B. If the owner or operator elects to recalculate the NMOC emission rate after determining a site-specific methane generation rate constant k, for Tier 3 per paragraph 7.6.a.9, and the resulting NMOC emission rate is less than 34 megagrams per year, the owner or operator shall resume annual periodic reporting. The owner or operator shall use the resulting site-specific methane generation rate constant k in the NMOC emission rate calculation until such time as the emissions rate calculation results in an exceedance. The owner or operator shall submit to the Secretary, per paragraph 7.9.j.2 and within one year of the first calculated NMOC emission rate equaling or exceeding 34 megagrams per year, the revised NMOC emission rate report based on the provisions of paragraph 7.6.a.9 and the resulting site specific methane generation rate constant k.

7.9.d.4.C. If the owner or operator elects to demonstrate that site-specific surface methane emissions are below 500 ppm methane, based on the provisions of paragraph 7.6.a.11, then the owner or operator shall annually submit a Tier 4 surface emissions report per paragraph 7.9.j.2 until the report shows a surface emissions reading of 500 ppm methane or greater. If the Tier 4 surface emissions report shows no surface emissions readings of 500 ppm methane or greater for four consecutive quarters at a closed landfill, then the owner or operator may reduce Tier 4 monitoring from a quarterly to an annual frequency. The Secretary may request additional information that may be necessary to verify the reported instantaneous surface emission readings. The Tier 4 surface emissions report shall clearly identify the location, date and time (to the nearest second), average wind speeds (including wind gusts), and reading (in ppm) of any value 500 ppm methane or greater, other than nonrepeatable, momentary readings. The owner or operator shall determine the latitude and longitude coordinates using an instrument with an accuracy of at least four meters for location, stating the coordinates in decimal degrees with at least five decimal places. The Tier 4 surface emission report shall also include the results of the most recent Tier 1 and Tier 2 results in order to verify that the landfill does not exceed 50 Mg/yr of NMOC.

7.9.d.4.C.1. The owner or operator shall submit the initial annual Tier 4 surface emissions report within 30 days of completing the fourth quarter of Tier 4 surface emissions monitoring that demonstrates that site specific surface methane emissions are below 500 ppm methane and following the procedure specified in paragraph 7.9.j.2 below; and

7.9.d.4.C.2. The owner or operator shall submit the Tier 4 surface emissions rate report within one year of the first measured surface exceedance of 500 ppm methane, following the procedure specified in paragraph 7.9.j.2 below.

7.9.d.4.D. If the landfill is in the closed landfill subcategory, the owner or operator shall submit a collection and control system design plan to the Secretary within one year of the first NMOC emission rate report in which the NMOC emission rate equals or exceeds 50 megagrams per year, except as follows:

7.9.d.4.D.1. If the owner or operator elects to recalculate the NMOC emission rate after the Tier 2 NMOC sampling and analysis under paragraph 7.6.a.7 and the resulting rate is less than 50 megagrams per year, the owner or operator shall resume annual periodic reporting using the Tier 2 determined site-specific NMOC concentration, until the calculated NMOC emission rate is equal to or greater than 50 megagrams per year or the owner or operator closes the landfill. The owner or operator shall submit the revised NMOC emission rate report, with the recalculated NMOC emission rate based on NMOC sampling and analysis, following the procedure specified in paragraph 7.9.j.2, within 180 days of the first calculated exceedance of 50 megagrams per year.

7.9.d.4.D.2. If the owner or operator elects to recalculate the NMOC emission rate after determining a site specific methane generation rate constant k for Tier 3 under paragraph 7.6.a.9, and the resulting NMOC emission rate is less than 50 megagrams per year, the owner or operator shall resume annual periodic reporting. The owner or operator shall use the resulting site specific methane generation rate constant k in the NMOC emission rate calculation until the emissions rate calculation results in an exceedance. The owner or operator shall submit the revised NMOC emission rate report per paragraph 7.6.a.9 and the resulting site-specific methane generation rate constant k, to the Secretary following the procedure specified in paragraph 7.9.j.2 within one year of the first calculated NMOC emission rate equaling or exceeding 50 megagrams per year.

7.9.d.4.D.3. If the owner or operator elects to demonstrate surface emissions are low, consistent with the provisions in subparagraph 7.9.d.4.C; and

7.9.d.4.D.4. The owner or operator has already submitted a gas collection and control system design plan consistent with the provisions of section 4 or section 6 of this rule.

7.9.d.5. The owner or operator shall notify the Secretary that the design plan is completed and submit a copy of the plan's signature page. The Secretary shall decide within 90 days whether the owner or operator should submit the design plan for review. If the Secretary chooses to review the plan, the approval process continues as described in paragraph 7.9.c.6. However, if the Secretary indicates that submission is not required or does not respond within 90 days, the owner or operator may continue to implement the plan with the recognition that it is proceeding at its own risk. If the Secretary requires the owner or operator to modify the design plan in order to obtain approval, the owner or operator shall take any steps necessary to conform any prior actions to the approved design plan, and the owner's or operator's failure to do so may result in an enforcement action by the Secretary.

7.9.d.6. Upon receipt of an initial or revised design plan, the Secretary shall review the information submitted under paragraphs 7.9.d.1 through 7.9.d.3 and either approve it, disapprove it or request that the owner or operator submit additional information. 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. If the Secretary 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 that it will be proceeding at its own risk.

7.9.d.7. If the owner or operator chooses to demonstrate compliance with the emission control requirements using a treatment system, then the owner or operator shall prepare a site-specific treatment system monitoring plan as specified in paragraph 7.10.b.5 below.

7.9.e. Revised design plan. -- If the owner or operator is required to submit a design plan under subdivision 7.9.d or sections 4 or 6, the owner or operator shall submit a revised design plan to the Secretary for approval as follows:

7.9.e.1. At least 90 days before expanding operations to an area not covered by the previously approved design plan; or

7.9.e.2. Prior to installing or expanding the gas collection system in a way that is not consistent with the design plan submitted to the Secretary per subdivision 7.9.d.

7.9.f. Closure report. -- The owner or operator shall submit a closure report to the Secretary within 30 days of ceasing waste acceptance. The Secretary may request additional information as may be necessary to verify that permanent closure has taken place per the requirements of 40 CFR § 258.60. If the owner or operator has submitted a closure report to the Secretary, the owner or operator may not place any additional wastes into the landfill without filing a notification of modification as described under 40 CFR § 60.7(a)(4).

7.9.g. Equipment removal report. -- The owner or operator shall submit an equipment removal report to the Secretary 30 days prior to removal or cessation of operation of the control equipment, which report shall contain the following:

7.9.g.1. A copy of the closure report submitted per subdivision 7.9.f. and:

7.9.g.2. A copy of the initial performance test report demonstrating that the 15-year minimum control period has expired, unless the performance test results report has been submitted to the EPA via the EPA's CDX or information that demonstrates that the gas collection and control system will be unable to operate for 15 years due to declining gas flows; or, in lieu thereof, a report stating the process unit(s) tested, the pollutant(s) tested, and the date that the performance test was conducted, if the owner or operator previously submitted this report to the EPA's CDX; and

7.9.g.3. Dated copies of three successive NMOC emission rate reports demonstrating the landfill is no longer producing 34 megagrams or greater of NMOC per year, unless the owner or operator submitted the NMOC emission rate reports to the EPA via the EPA's CDX; or, in lieu thereof, if the owner or operator has previously submitted the NMOC emission rate reports to the EPA's CDX, a statement that the owner or operator submitted the NMOC emission rate reports electronically, along with the dates that the reports were submitted; or

7.9.g.4. For the closed landfill subcategory, 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; or, in lieu thereof, a statement that the owner or operator submitted the NMOC emission rate reports electronically to EPA's CDX, along with the dates that the owner or operator electronically submitted the reports.

7.9.g.5. The Secretary may request additional information as may be necessary to verify that the owner or operator has met all of the conditions for removal under subdivision 7.4.f.

7.9.h. Annual report. -- If the owner or operator chooses to comply with paragraph 7.4.e.2 using an active collection system designed per subdivision 7.4.b, the owner or operator shall submit an annual report to the Secretary according to paragraph 7.9.j.2, containing the information listed in paragraphs 7.9.h.1 through 7.9.h.7. The owner or operator shall submit the initial annual report within 180 days of installation and startup of the collection and control system. The initial annual report shall include the initial performance test report required under 40 CFR § 60.8, as applicable, unless the performance test results report has been submitted to the EPA via the EPA's CDX, in which case, the owner or operator may submit, in lieu thereof, a statement that the owner or operator electronically filed the performance test report, the process unit(s) tested, the pollutant(s) tested, and the date that the owner or operator conducted the performance test. The owner or operator shall submit the initial performance test report per paragraph 7.9.j.1 before the date it submits the initial annual report. For enclosed combustion devices and flares, reportable exceedances are defined under paragraph 7.10.c.1. The annual report shall contain:

7.9.h.1. The value and length of time for exceedance of applicable parameters monitored under paragraph 7.8.a.1 and subdivisions 7.8.b, 7.8.c, 7.8.d, and 7.8.g;

7.9.h.2. A description and duration of all periods when the gas stream was diverted from the control device or treatment system through a bypass line or the indication of bypass flow as specified in section 7.8;

7.9.h.3. A description and duration of all periods when the control device or treatment system was not operating and length of time the control device or treatment system was not operating;

7.9.h.4. All periods when the collection system was not operating;

7.9.h.5. The location of each exceedance of the 500 ppm methane concentration per subdivision 7.5.b.4 and the concentration recorded at each location for which an exceedance was recorded in the previous month, determining the latitude and longitude coordinates using an instrument with an accuracy of at least four meters for the location, which coordinates shall be in decimal degrees with at least five decimal places;

7.9.h.6. The date of installation and the location of each well or collection system expansion added pursuant to 7.7.a.3, 7.7.a.4, 7.7.b, and 7.7.c.4; and

7.9.h.7. For any corrective action analysis for which corrective actions are required by 7.7.a.3 or 7.7.a.4 and that take more than 60 days to correct the exceedance, the root cause analysis conducted, including a description of the recommended corrective action(s), the date for corrective

action(s) already completed following the positive pressure reading, and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates.

7.9.i. Initial performance test report. -- To comply with subdivision 7.4.c, the owner or operator shall include the following information with the initial performance test report required under 40 CFR § 60.8 and 45CSR16:

7.9.i.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;

7.9.i.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;

7.9.i.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;

7.9.i.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;

7.9.i.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

7.9.i.6. The provisions for the control of off-site migration.

7.9.j. Electronic reporting. -- The owner or operator shall submit reports electronically according to the following:

7.9.j.1. Within 60 days after the date of completing each performance test (as defined in 40 CFR § 60.8), the owner or operator shall submit the results of each performance test according to the following procedures:

7.9.j.1.A. For data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT website at the time of the test, the owner or operator shall submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI), which can be accessed through EPA's Central Data Exchange (CDX). The owner or operator shall submit performance test data in a file format generated through the use of the EPA's ERT or an alternative file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT website, once the XML schema is available. If the owner or operator claims that some of the performance test information being submitted is confidential business information (CBI), the owner or operator shall submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website, including information claimed to be CBI, on a compact disc, flash drive or other commonly used electronic storage media to the EPA. The owner or operator shall clearly mark electronic media shall be clearly marked as CBI and mailed to the EPA at the address listed on EPA's ERT website. The owner or operator shall submit the same ERT or alternate file with the CBI omitted to the EPA via the EPA's CDX as described earlier in this subparagraph.

7.9.j.1.B. For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT website at the time of the test, the owner or operator shall submit the results of the performance test to the Administrator at the appropriate address listed in 40 CFR § 60.4.

7.9.j.2. Each owner or operator required to submit reports following the procedure specified in this paragraph shall submit reports to the EPA via the CEDRI, which can be accessed through the EPA's CDX. The owner or operator shall use the appropriate electronic report in CEDRI for this submission or an alternate electronic file format consistent with the XML schema listed on the CEDRI website. If the specific reporting form is not available in CEDRI at the time that the report is due, the owner or operator shall submit the report to the Administrator at the appropriate address listed in 40 CFR § 60.4. Once the form has been available in CEDRI for 90 calendar days, the owner or operator shall submit all subsequent reports via CEDRI. The owner or operator shall submit the reports by the deadlines specified in section 7, regardless of the method of submittal.

7.9.k. Corrective action and the corresponding timeline. -- The owner or operator shall submit the following:

7.9.k.1. For corrective action that is required by subparagraph 7.7.a.3.C or 7.7.a.4.C and that is expected to take longer to complete than 120 days after the initial exceedance, the owner or operator shall submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the Secretary as soon as practicable but no later than 75 days after the first measurement of positive pressure or temperature monitoring value of 55 degrees Celsius (131 degrees Fahrenheit) or above. The Secretary shall approve the plan for corrective action and the corresponding timeline.

7.9.k.2. For corrective action that is required by subparagraph 7.7.a.3.C or 7.7.a.4.C and that is not completed within 60 days after the initial exceedance, the owner or operator shall submit a notification to the Secretary as soon as practicable but no later than 75 days after the first measurement of positive pressure or temperature exceedance.

7.9.l. Liquids addition. -- The owner or operator of an affected landfill with a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters that has employed leachate recirculation or added liquids based on a Research, Development, and Demonstration permit (issued through Resource Conservation and Recovery Act, subtitle D, part 258) within the last ten years shall annually submit to the Secretary, per paragraph 7.9.j.2, the following information:

7.9.l.1. Volume of leachate recirculated (gallons per year) and the reported basis of those estimates (records or engineering estimates);

7.9.l.2. Total volume of all other liquids added (gallons per year) and the reported basis of those estimates (records or engineering estimates);

7.9.l.3. Surface area (acres) over which the leachate is recirculated (or otherwise applied);

7.9.l.4. Surface area (acres) over which any other liquids are applied;

7.9.l.5. The total waste disposed (megagrams) in the areas with recirculated leachate and/or added liquids based on on-site records, to the extent data are available, or engineering estimates and the reported basis of those estimates; and

7.9.l.6. The annual waste acceptance rates (megagrams per year) in the areas with recirculated leachate and/or added liquids based on on-site records, to the extent data are available, or engineering estimates.

7.9.l.7. The initial report shall contain items in paragraphs 7.9.l.1 through 7.9.l.6 on an annual basis for the most recent 365 days, as well as for each of the previous ten years, to the extent historical data are available in on-site records, which report shall be submitted no later than:

7.9.l.7.A. September 27, 2017 for landfills that commenced construction, modification or reconstruction after July 17, 2014 but before August 29, 2016; or

7.9.l.7.B. One year (365 days) after the date of commenced construction, modification or reconstruction for landfills that commence construction, modification or reconstruction after August 29, 2016.

7.9.l.8. Subsequent annual reports shall contain items in 7.9.l.1 through 7.9.l.6 for the annual (365 days) period following the period included in the previous annual report (365 days), which report shall be submitted no later than 365 days after the date the previous report was submitted.

7.9.l.9. Landfills in the closed landfill subcategory are exempt from the reporting requirements contained in paragraphs 7.9.l.1 through 7.9.l.7.

7.9.l.10. The owner or operator may cease annual reporting of items in paragraphs 7.9.l.1 through 7.9.l.6 after the owner or operator has submitted the closure report per subdivision 7.9.f.

7.9.m. Tier 4 notification.

7.9.m.1. The owner or operator of an affected landfill with a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters shall provide a notification of the date(s) the owner or operator intends to demonstrate site specific surface methane emissions are below 500 ppm methane, based on the Tier 4 provisions of paragraph 7.6.a.11. The owner or operator shall also include a description in the notification of the wind barrier to be used during the surface emission monitoring. Notification shall be postmarked not less than 30 days prior to the Tier 4 surface emission monitor date.

7.9.m.2. If there is a delay to the scheduled Tier 4 surface emission monitor date due to weather conditions, including not meeting the wind requirements of part 7.6.a.11.E.1, the owner or operator shall notify the Secretary by email or telephone no later than 48 hours before any known delay in the original test date and arrange with the Secretary a mutually agreeable new test date.

7.10. Recordkeeping requirements.

7.10.a. Except as provided in paragraph 7.9.d.2, each owner or operator of an MSWL subject to the provisions of subdivision 7.4.e shall keep on-site records of the design capacity report that triggered subdivision 7.4.f, the current amount of solid waste in place, and the year-by-year waste acceptance rate for at least five years up-to-date, readily accessible. The owner or operator may maintain off-site records if they are retrievable within four hours. Either paper copy or electronic formats are acceptable.

7.10.b. Except as provided in paragraph 7.9.d.2, the owner or operator shall keep up-to-date, readily accessible records of the data listed in paragraphs 7.10.b.1 through 7.10.b.5 below, as measured during the initial performance test or compliance determination, for the life of the control system equipment. The owner or operator shall maintain records of subsequent tests or monitoring for a minimum of five years and records of the control device vendor specifications the control device is removed.

7.10.b.1. To demonstrate compliance with the collection system requirements of subdivision 7.4.b, the owner or operator shall keep a record of:

7.10.b.1.A. The maximum expected gas generation flow rate as calculated in paragraph 7.7.a.1. If the Administrator approved another method to determine the maximum gas generation flow rate, the owner or operator may use the other method; and

7.10.b.1.B. The density of wells, horizontal collectors, surface collectors or other gas

extraction devices determined per subparagraph 7.5.a.1.A.

7.10.b.2. To demonstrate compliance with the control system requirements of subdivision 7.4.c through the use of an enclosed combustion device other than a boiler or process heater with a design heat input capacity equal to or greater than 44 megawatts, the owner or operator shall keep a record of:

7.10.b.2.A. The average temperature measured at least every 15 minutes and averaged over the same time period of the performance test; and

7.10.b.2.B. The percent reduction of NMOC achieved by the control device determined per paragraph 7.4.c.2.

7.10.b.3. To demonstrate compliance with paragraph 7.4.c.1 through the use of a non-enclosed flare, the owner or operator shall keep a record of the flare type (i.e., steam assisted, air-assisted or non-assisted), 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 40 CFR § 60.18, as well as continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations during which the pilot flame or the flare flame is absent.

7.10.b.4. To demonstrate compliance with subparagraph 7.4.c.2.A through the use of a boiler or process heater of any size the owner or operator shall keep a record including a description of the location where the collected gas vent stream is introduced into the boiler or process heater over the same time period of the performance testing.

7.10.b.5. To demonstrate compliance with paragraph 7.4.c.3 through the use of a landfill gas treatment system the owner or operator shall keep:

7.10.b.5.A. Bypass records. -- Records of the flow of landfill gas to, and bypass of, the treatment system; and

7.10.b.5.B. A site specific treatment monitoring plan, to include:

7.10.b.5.B.1. Monitoring records of parameters identified in the treatment system monitoring plan and that ensure the treatment system is operating properly for each intended end use of the treated landfill gas. At a minimum, the owner or operator shall include records of filtration, de-watering, and compression parameters that ensure the treatment system is operating properly for each intended end use of the treated landfill gas;

7.10.b.5.B.2. Monitoring methods, frequencies, and operating ranges for each monitored operating parameter based on manufacturer's recommendations or engineering analysis for each intended end use of the treated landfill gas;

7.10.b.5.B.3. Documentation of the monitoring methods and ranges, along with justification for their use;

7.10.b.5.B.4. Identification of who is responsible (by job title) for data collection;

7.10.b.5.B.5. Documentation of processes and methods used to collect the necessary data; and

7.10.b.5.B.6. Description of the procedures and methods that are used for quality assurance, maintenance, and repair of all continuous monitoring systems.

7.10.c. Except as provided in paragraph 7.9.d.2, the owner or operator shall keep for five years

up-to-date, readily accessible, continuous records of the equipment operating parameters required by section 7.8, 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.

7.10.c.1. The following constitute exceedances that the owner or operator shall record and report under section 7.9:

7.10.c.1.A. For enclosed combustors, except for boilers and process heaters with design heat input capacity greater than 44 megawatts (150 million British thermal unit per hour), all three-hour periods of operation that the average temperature was more than 28 degrees Celsius (82 degrees Fahrenheit) below the average combustion temperature that the owner or operator determined compliance with subdivision 7.4.c during the most recent performance test; and

7.10.c.1.B. For boilers or process heaters, whenever there is a change in the location where the vent stream is introduced into the flame zone per paragraph 7.10.b.3.

7.10.c.2. The owner or operator shall keep up-to-date, readily accessible, continuous records of the indication of flow to the control system and the indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines, per section 7.8.

7.10.c.3. If the owner or operator uses a boiler or process heater with a design heat input capacity greater than 44 megawatts to comply with subdivision 7.4.c, the owner or operator shall keep an up-to-date, readily accessible record of all periods of operation of the boiler or process heater (e.g. records of steam use, fuel use or monitoring data collected pursuant to other State, local, tribal or federal regulatory requirements).

7.10.c.4. Each owner or operator seeking to comply with the provisions of section 7 by use of a non-enclosed flare shall keep up-to-date, readily accessible, continuous records of the flame or flare pilot flame monitoring required by subdivision 7.8.c, and up-to-date, readily accessible records of all periods of operation in which the flame or flare pilot flame is absent.

7.10.c.5. Each owner or operator seeking to comply with subdivision 7.4.e using an active collection system designed per subdivision 7.4.b, shall keep records of periods when the collection system or control device is not operating.

7.10.d. The owner or operator shall keep an up-to-date, readily accessible plot map showing each existing and planned collector in the system and providing a unique identification location label on each collector that matches the labeling on the plot map for the life of the collection system, except as provided in paragraph 7.9.d.2. below. The owner or operator shall keep:

7.10.d.1. Up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified under subdivision 7.7.b.; and

7.10.d.2. Readily accessible documentation of the nature, date of deposition, amount, and location of asbestos containing or nondegradable waste excluded from collection under part 7.5.a.1.C.1 and any nonproductive areas excluded from collection under part 7.5.a.1.C.2.

7.10.e. The owner or operator shall keep up-to-date, readily accessible records of the following, except as provided in paragraph 7.9.d.2, for a minimum of five years:

7.10.e.1. All collection and control system exceedances of the operational standards in subdivision 7.5.b, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance;

7.10.e.2. Each wellhead temperature monitoring value of 55 degrees Celsius (131 degrees Fahrenheit) or above, each wellhead nitrogen level at or above 20%, and each wellhead oxygen level at or above five percent;

7.10.e.3. The root cause analysis conducted, including a description of the recommended corrective action(s) taken and the date(s) the corrective action(s) were completed, for which corrective actions are required by paragraphs 7.7.a.3 or 7.7.a.4;

7.10.e.4. The root cause analysis conducted, the corrective action analysis, the date for corrective action(s) already completed following the positive pressure reading or high temperature reading, and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates, for which corrective actions are required by subparagraphs 7.7.a.3.B or 7.7.a.4.B; and

7.10.e.5. The root cause analysis conducted, the corrective action analysis, the date for corrective action(s) already completed following the positive pressure reading or high temperature reading, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates, and a copy of any comments or final approval on the corrective action analysis or schedule from the Secretary for any root cause analysis for which corrective actions are required by subparagraphs 7.7.a.3.C or 7.7.4.C.

7.10.f. Landfill owners or operators who convert design capacity from volume to mass or mass to volume to demonstrate that the landfill design capacity is less than 2.5 million megagrams or 2.5 million cubic meters shall keep readily accessible, on-site records of the annual recalculation of site specific density, design capacity, and the supporting documentation. The owner or operator may maintain records off site if they are retrievable within four hours. Either paper copy or electronic formats are acceptable.

7.10.g. To demonstrate that site-specific surface methane emissions are below 500 ppm by conducting surface emission monitoring under the Tier 4 procedures specified in paragraph 7.6.a.11, the owner or operator shall keep for a minimum of five years up-to-date, readily accessible records of all surface emissions monitoring and information related to monitoring instrument calibrations conducted per Sections 8 and 10 of 40 CFR Part 60, Appendix A and 45CSR16 including all of the following items:

7.10.g.1. Calibration records:

7.10.g.1.A. Date of calibration and initials of operator performing the calibration;

7.10.g.1.B. Calibration gas cylinder identification, certification date, and certified concentration;

7.10.g.1.C. Instrument scale(s) used;

7.10.g.1.D. A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value; and

7.10.g.1.E. If the owner or operator makes its own calibration gas, a description of the procedure used.

7.10.g.2. Digital photographs of the instrument setup. -- For the duration of the Tier 4 monitoring demonstration, the owner or operator shall take time and date stamped digital photographs prior to sampling at the first sampling location and at the last sampling location after sampling at the end of each sampling day;

7.10.g.3. Time stamp of each surface scan reading:

7.10.g.3.A. The time stamp should be detailed to the nearest second, based on when the sample collection begins; and

7.10.g.3.B. A log for the length of time each sample was taken using a stopwatch (e.g., the time the probe was held over the area).

7.10.g.4. Location of each surface scan reading. – The owner or operator shall determine the coordinates using an instrument with an accuracy of at least four meters, which coordinates shall be in decimal degrees with at least five decimal places;

7.10.g.5. Monitored methane concentration (ppm) of each reading;

7.10.g.6. Background methane concentration (ppm) after each instrument calibration test;

7.10.g.7. Adjusted methane concentration using most recent calibration (ppm);

7.10.g.8. For readings taken at each surface penetration, the unique identification location label matching the label specified in subdivision 7.10.d; and

7.10.g.9. Records of the operating hours of the gas collection system for each destruction device.

7.10.h. The owner or operator shall keep up-to-date, readily accessible records of all collection and control system monitoring data for parameters measured in paragraphs 7.8.a.1, 7.8.a.2, and 7.8.a.3 for a minimum of five years, except as provided in paragraph 7.9.d.2.

7.10.i. The owner or operator may maintain in electronic format any documents required to be maintained by section 7 that it submitted electronically via EPA's CDX.

7.10.j. If the owner or operator reports leachate or other liquids addition under subdivision 7.9.l, the owner or operator shall keep records of any engineering calculations or company records used to estimate the quantities of leachate or liquids added, the surface areas for which the leachate or liquids were applied, and the estimates of annual waste acceptance or total waste in place in the areas where the owner or operator applied leachate or liquids.

§45-23-8. Secretary.

8.1. All references in 40 CFR Part 60 Subparts Cf and XXX to the "Administrator" are amended to be the "Secretary" except in the following references, which shall remain "Administrator":

8.1.a. Where the Federal Regulations specifically provide that the Administrator shall retain authority and not transfer such authority to the Secretary;

8.1.b. Where provisions occur which refer to:

8.1.b.1. Alternate means of emission limitations;

8.1.b.2. Alternate control technologies;

8.1.b.3. Innovative technology waivers;

8.1.b.4. Alternate test methods;

8.1.b.5. Alternate monitoring methods;

8.1.b.6. Waivers/adjustments to recordkeeping and reporting;

8.1.b.7. Applicability determinations; or

8.1.b.8. The requirements of 40 CFR § 60.764(a)(5) to approve other methods to determine the NMOC concentration or a site specific methane generation rate constant as an alternative to the methods required by 40 CFR § 60.764(a)(3) and (4); and

8.1.c. Where the context of the regulation clearly requires otherwise.

§45-23-9. Inconsistency Between Rules.

9.1. In the event of any inconsistency between this rule and any other rule of the Division of Air Quality, the inconsistency shall be resolved by the determination of the Secretary, and the determination shall be based upon the application of the more stringent provision, term, condition, method or rule.

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APPENDIX B
PUBLIC PARTICIPATION

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west virginia department of environmental protection

Division of Air Quality
601 57th Street, SE
Charleston, WV 25304

Austin Caperton, Cabinet Secretary
dep.wv.gov

July 17, 2018

Ms. Cristina Fernandez, Director
Air Protection Division
U.S. EPA, Region 3
1650 Arch Street (3AP00)
Philadelphia, PA 19103-2029

Re: West Virginia Revised CAA § 111(d) Plan for Municipal Solid Waste (MSW) Landfills

Dear Ms. Fernandez:

I am herein submitting the above-referenced proposed revision to the West Virginia § 111(d) Plan for review and comment by the U. S. Environmental Protection Agency (EPA). West Virginia state rule 45 C.S.R. 23, *Control of Air Pollution from Municipal Solid Waste Landfills*, effective June 1, 2018, was revised in response to final rules published by the EPA on August 29, 2016 titled "*Standards of Performance for Municipal Solid Waste Landfills*" and "*Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills*".

The public comment period commences on July 20, 2018. The WV Department of Environmental Protection, Division of Air Quality will accept written comments on the proposed state plan revision until August 20, 2018. In addition, the agency will receive oral and written comments at a public hearing to be held on August 20, 2018 at 5:30 p.m. as detailed in the notice.

Please submit any written comments to my attention at the above address, or feel free to call me with any questions regarding this matter at (304) 926-0462.

Sincerely,

William F. Durham
Director

WFD/lmj
Enclosures

cc: Rich Boehm, DAQ
Mike Gordon, USEPA/3AP10
Laura Jennings, DAQ

Promoting a healthy environment.

Proposed Revision to the West Virginia Section 111(d) State Plan
Control of Air Pollution from Municipal Solid Waste Landfills

Notice of Public Hearing and Public Comment Period

The West Virginia Department of Environmental Protection (DEP), Division of Air Quality (DAQ) is revising the Clean Air Act § 111(d) State Plan for the Control of Air Pollution from Municipal Solid Waste (MSW) Landfills. This plan revision incorporates changes made to rule 45 C.S.R. 23 - "Control of Air Pollution from Municipal Solid Waste Landfills". This rule change requires DAQ to submit a State Plan revision for MSW landfills and conduct a public hearing.

DAQ will hold a public hearing on Monday, August 20, 2018 beginning at 5:30 p.m. on a proposed revised State Plan to implement Emission Guidelines for MSW landfills.

The public hearing is being held to satisfy the requirements for submitting a revised § 111(d) State Plan. The revised plan will be submitted to the United States Environmental Protection Agency (USEPA) and supplemented by legislative rule 45 C.S.R. 23 - "Control of Air Pollution from Municipal Solid Waste Landfills," which became effective June 1, 2018. This rule gives West Virginia regulatory authority to adopt, implement and enforce the Emission Guidelines requirements for existing MSW landfills and the New Source Performance Standards for new facilities, either directly through administrative action requiring compliance with 45 C.S.R. 23, or by including such requirements in State permits, where applicable.

The public hearing will be held in the Dolly Sods conference room #1125, at the DEP Charleston headquarters located at 601 57th Street SE, Charleston, West Virginia 25304. Written and oral comments will be accepted until the close of the hearing on August 20, 2018. Comments will also be accepted by e-mail if transmitted by 5:30 p.m. on August 20, 2018 to richard.a.boehm@wv.gov . Written comments may also be submitted at the following address:

William F. Durham, Director
Division of Air Quality
601 57th Street, SE
Charleston, WV 25304

Comments submitted by mail must be postmarked by August 20, 2018. Copies of the proposed revised State Plan will be available for public review on or before August 20, 2018, at the Department of Environmental Protection, Division of Air Quality's Charleston office at the above address, or on the website at http://www.dep.wv.gov/daq/publicnoticeandcomment/Pages/default.aspx. Appendices to the Plan will be available upon request.

APPENDIX C

W. Va. State Code

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W. Va. Code § 22-5-1 et seq.

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CHAPTER 22. ENVIRONMENTAL RESOURCES.

ARTICLE 5. AIR POLLUTION CONTROL.

§22-5-1. Declaration of policy and purpose.

It is hereby declared to be the public policy of this state and the purpose of this article to achieve and maintain such levels of air quality as will protect human health and safety, and to the greatest degree practicable, prevent injury to plant and animal life and property, foster the comfort and convenience of the people, promote the economic and social development of this state and facilitate the enjoyment of the natural attractions of this state.

To these ends it is the purpose of this article to provide for a coordinated statewide program of air pollution prevention, abatement and control; to facilitate cooperation across jurisdictional lines in dealing with problems of air pollution not confined within single jurisdictions; to assure the economic competitiveness of the state by providing for the timely processing of permit applications and other authorizations under this article; and to provide a framework within which all values may be balanced in the public interest.

Further, it is the public policy of this state to fulfill its primary responsibility for assuring air quality pursuant to the Federal Clean Air Act, as amended.

§22-5-2. Definitions.

The terms used in this article are defined as follows:

(1) "Air pollutants" means solids, liquids or gases which, if discharged into the air, may result in a statutory air pollution.

(2) "Board" means the air quality board continued pursuant to the provisions of article two, chapter twenty-two-b of this code.

(3) "Director" means the director of the Division of Environmental Protection or such other person to whom the director has delegated authority or duties pursuant to sections six or eight, article one, chapter twenty-two of this code.

(4) "Discharge" means any release, escape or emission of air pollutants into the air.

(5) "Person" means any and all persons, natural or artificial, including the State of West Virginia or any other state, the United States of America, any municipal, statutory, public or private corporation organized or existing under the laws of this or any other state or country, and any firm, partnership or association of whatever nature.

(6) "Statutory air pollution" means and is limited to the discharge into the air by the act of man of substances (liquid, solid, gaseous, organic or inorganic) in a locality, manner and amount as to be injurious to human health or welfare, animal or plant life, or property, or which would interfere with the enjoyment of life or property.

§22-5-3. Causing statutory pollution unlawful; article not to provide persons with additional legal remedies.

It is unlawful for any person to cause a statutory air pollution, to violate the provisions of this article, to violate any rules promulgated pursuant to this article to operate any facility subject to the permit requirements of the director without a valid permit, or to knowingly misrepresent to any person in the State of West Virginia that the sale of air pollution control equipment will meet the standards of this article or any rules promulgated pursuant to this article. Nothing contained in this article provides any person with a legal remedy or basis for damages or other relief not otherwise available to such person immediately prior to enactment of this article.

§22-5-4. Powers and duties of director; and legal services; rules.

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(a) The director is authorized:

(1) To develop ways and means for the regulation and control of pollution of the air of the state;

(2) To advise, consult and cooperate with other agencies of the state, political subdivisions of the state, other states, agencies of the federal government, industries, and with affected groups in furtherance of the declared purposes of this article;

(3) To encourage and conduct such studies and research relating to air pollution and its control and abatement as the director may deem advisable and necessary;

(4) To promulgate legislative rules in accordance with the provisions of chapter twenty-nine-a of this code not inconsistent with the provisions of this article, relating to the control of air pollution: *Provided,* That no rule of the director shall specify a particular manufacturer of equipment nor a single specific type of construction nor a particular method of compliance except as specifically required by the "Federal Clean Air Act," as amended, nor shall any such rule apply to any aspect of an employer-employee relationship: *Provided, however,* That no legislative rule or program of the director hereafter adopted shall be any more stringent than any federal rule or program except to the limited extent that the director first makes a specific written finding for any such departure that there exists scientifically supportable evidence for such rule or program reflecting factors unique to West Virginia or some area thereof;

(5) To enter orders requiring compliance with the provisions of this article and the rules lawfully promulgated hereunder;

(6) To consider complaints, subpoena witnesses, administer oaths, make investigations and hold hearings relevant to the promulgation of rules and the entry of compliance orders hereunder;

(7) To encourage voluntary cooperation by municipalities, counties, industries and others in preserving the purity of the air within the state;

(8) To employ personnel, including specialists and consultants, purchase materials and supplies, and enter into contracts necessary, incident or convenient to the accomplishment of the purpose of this article;

(9) To enter and inspect any property, premise or place on or at which a source of air pollutants is located or is being constructed, installed or established at any reasonable time for the purpose of ascertaining the state of compliance with this article and rules promulgated under the provisions of this article. No person shall refuse entry or access to any authorized representative of the director who requests entry for purposes of inspection, and who presents appropriate credentials; nor shall any person obstruct, hamper or interfere with any such inspection: *Provided,*That nothing contained in this article eliminates any obligation to follow any process that may be required by law;

(10) Upon reasonable evidence of a violation of this article, which presents an imminent and serious hazard to public health, to give notice to the public or to that portion of the public which is in danger by any and all appropriate means;

(11) To cooperate with, receive and expend money from the federal government and other sources; and the director may cooperate with any public or private agency or person and receive therefrom and on behalf of the state gifts, donations, and contributions, which shall be deposited to the credit of the "Air Pollution Education and Environment Fund" which is hereby continued in the state Treasury. The moneys collected pursuant to this article which are directed to be deposited in the air pollution education and environment fund must be deposited in a separate account in the state Treasury and expenditures for purposes set forth in this article are not authorized from collection but are to be made only in accordance with appropriation and in accordance with the provisions of article three, chapter twelve of this code and upon fulfillment of the provisions set forth in article two, chapter five-a of this code. Amounts collected which are found from time to time to exceed the funds

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needed for the purposes set forth in this article may be transferred to other accounts or funds and redesignated for other purposes by appropriation of the Legislature;

(12) To represent the state in any and all matters pertaining to plans, procedures and negotiations for interstate compacts in relation to the control of air pollution;

(13) To appoint advisory councils from such areas of the state as he or she may determine. The members shall possess some knowledge and interest in matters pertaining to the regulation, control and abatement of air pollution. The council may advise and consult with the director about all matters pertaining to the regulation, control and abatement of air pollution within such area;

(14) To require any and all persons who are directly or indirectly discharging air pollutants into the air to file with the director such information as the director may require in a form or manner prescribed by him or her for such purpose, including, but not limited to, location, size and height of discharge outlets, processes employed, fuels used and the nature and time periods of duration of discharges. Such information shall be filed with the director, when and in such reasonable time, and in such manner as the director may prescribe;

(15) To require the owner or operator of any stationary source discharging air pollutants to install such monitoring equipment or devices as the director may prescribe and to submit periodic reports on the nature and amount of such discharges to the director;

(16) To do all things necessary and convenient to prepare and submit a plan or plans for the implementation, maintenance and enforcement of the "Federal Clean Air Act," as amended:*Provided,* That in preparing and submitting each such plan the director shall establish in such plan that such standard shall be first achieved, maintained and enforced by limiting and controlling emissions of pollutants from commercial and industrial sources and locations and shall only provide in such plans for limiting and controlling emissions of pollutants from private dwellings and the curtilage thereof as a last resort: *Provided, however,* That nothing herein contained affects plans for achievement, maintenance and enforcement of motor vehicle emission standards and of standards for fuels used in dwellings;

(17) To promulgate legislative rules, in accordance with the provisions of chapter twenty-nine-a of this code, providing for the following:

(A) Procedures and requirements for permit applications, transfers and modifications and the review thereof;

(B) Imposition of permit application and transfer fees;

(C) Establishment of criteria for construction, modification, relocation and operating permits;

(D) Imposition of permit fees and of certificate fees: *Provided,* That any person subject to operating permit fees pursuant to section twelve of this article is exempt from imposition of the certificate fee; and

(E) Imposition of penalties and interest for the nonpayment of fees.

The fees, penalties and interest shall be deposited in a special account in the state Treasury designated the "Air Pollution Control Fund", formerly the "Air Pollution Control Commission Fund", which is hereby continued to be appropriated for the sole purpose of paying salaries and expenses of the board, the office of air quality and their employees to carry out the provisions of this article: *Provided,* That the fees, penalties and interest collected for operating permits required by section twelve of this article shall be expended solely to cover all reasonable direct and indirect costs required to administer the operating permit program. The fees collected pursuant to this subdivision must be deposited in a separate account in the state Treasury and expenditures for purposes set forth in this article are not authorized from collections but are to be made only in

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accordance with appropriation and in accordance with the provisions of article three, chapter twelve of this code and upon fulfillment of the provisions set forth in article two, chapter five-a of this code. Amounts collected which are found from time to time to exceed the funds needed for the purposes set forth in this article may be transferred to other accounts or funds and redesignated for other purposes by appropriation of the Legislature: *Provided, however,* That for fiscal year one thousand nine hundred ninety-three, expenditures are permitted from collections without appropriation by the Legislature; and

(18) Receipt of any money by the director as a result of the entry of any consent order shall be deposited in the state Treasury to the credit of the air pollution education and environment fund.

(b) The Attorney General and his or her assistants and the prosecuting attorneys of the several counties shall render to the director without additional compensation such legal services as the director may require of them to enforce the provisions of this article.

§22-5-5. Issuance of cease and desist orders by director; service; permit suspension, modification and revocatic appeals to board.

If, from any investigation made by the director or from any complaint filed with him or her, the director is of the opinion that a person is violating the provisions of this article, or any rules promulgated pursuant thereto, he or she shall make and enter an order directing the person to cease and desist the activity, unless the director determines the violation is of a minor nature or the violation has been abated. The director shall fix a reasonable time in such order by which the activity must stop or be prevented. The order shall contain the findings of fact upon which the director determined to make and enter the order.

If, after any investigation made by the director, or from any complaint filed with him or her, the director is of the opinion that a permit holder is violating the provisions of this article, or any rules promulgated pursuant thereto, or any order of the director, or any provision of a permit, the director may issue notice of intent to suspend, modify or revoke and reissue such permit. Upon notice of the director's intent to suspend, modify or revoke a permit, the permit holder may request a conference with the director to show cause why the permit should not be suspended, modified or revoked. The request for conference must be received by the director within fifteen days following receipt of notice. After conference or fifteen days after issuance of notice of intent, if no conference is requested, the director may enter an order suspending, modifying or revoking the permit and send notice to the permit holder. Such order is a cease and desist order for purposes of administrative and judicial review and shall contain findings of fact upon which the director determined to make and enter the order. If an appeal of the director's order is filed, the order of the director shall be stayed from the date of issuance pending a final decision of the board.

The director shall cause a copy of any such order to be served upon the person by registered or certified mail or by any proper law-enforcement officer.

Any person upon whom a copy of the final order has been served may appeal such order to the air quality board pursuant to the provisions of article one, chapter twenty-two-b of this code.

§22-5-6. Penalties; recovery and disposition; duties of prosecuting attorneys.

(a) Any person who violates any provision of this article, any permit or any rule or order issued pursuant to this article or article one, chapter twenty-two-b of this code is subject to a civil penalty not to exceed $10,000 for each day of such violation, which penalty shall be recovered in a civil action brought by the director in the name of the State of West Virginia in the circuit court of any county wherein the person resides or is engaged in the activity complained of or in the circuit court of Kanawha County. The amount of the penalty shall be fixed by the court without a jury:*Provided,* That any person is not subject

to civil penalties unless the person has been given written notice thereof by the director: *Provided, however,* That for the first such minor violation, if the person corrects the violation within the time as was specified in the notice of violation issued by the director, no civil penalty may be recovered: *Provided further,* That if the person fails to correct a minor violation or for any serious or subsequent serious or minor violation, the person is subject to civil penalties imposed pursuant to this section from the first day of the violation notwithstanding the date of the issuance or receipt of the notice of violation. The director shall, by rule subject to the provisions of chapter twenty-nine-a of this code, determine the definitions of serious and minor violations. The amount of any penalty collected by the director shall be deposited in the general revenue of the state Treasury according to law.

(b)(1) Any person who knowingly misrepresents any material fact in an application, record, report, plan or other document filed or required to be maintained under the provisions of this article or any rules promulgated under this article is guilty of a misdemeanor and, upon conviction thereof, shall be fined not more than $25,000 or imprisoned in the county jail not more than six months or both fined and imprisoned: *Provided,* That if the violation occurs on separate days or is continuing in nature, the fine shall be no more than $25,000 for each day of such violation.

(2) Any person who knowingly violates any provision of this article, any permit or any rule or order issued pursuant to this article or article one, chapter twenty-two-b of this code is guilty of a misdemeanor and, upon conviction thereof, shall be fined not more than $25,000 for each day of such violation or imprisoned in the county jail not more than one year or both fined and imprisoned.

(c) Upon a request in writing from the director it is the duty of the Attorney General and the prosecuting attorney of the county in which any such action for penalties accruing under this section or section seven of this article may be brought to institute and prosecute all such actions on behalf of the director.

(d) For the purpose of this section, violations on separate days are separate offenses.

§22-5-7. Applications for injunctive relief.

The director may seek an injunction against any person in violation of any provision of this article or any permit, rule or order issued pursuant to this article or article one, chapter twenty-two-b of this code. In seeking an injunction, it is not necessary for the director to post bond nor to allege or prove at any stage of the proceeding that irreparable damage will occur if the injunction is not issued or that the remedy at law is inadequate. An application for injunctive relief brought under this section or for civil penalty brought under section six of this article may be filed and relief granted notwithstanding the fact that all administrative remedies provided in this article have not been exhausted or invoked against the person or persons against whom such relief is sought.

In any action brought pursuant to the provisions of section six or of this section, the state, or any agency of the state which prevails, may be awarded costs and reasonable attorney's fees.

§22-5-8. Emergencies.

Whenever air pollution conditions in any area of the state become such as, in the opinion of the director, to create an emergency and to require immediate action for the protection of the public health, the director may, with the written approval of the Governor, so find and enter such order as it deems necessary to reduce or prevent the emission of air pollutants substantially contributing to such conditions. In any such order the director shall also fix a time, not later than twenty-four hours thereafter, and place for a hearing to be held before it for the purpose of investigating and determining the factors causing or

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contributing to such conditions. A true copy of any such order shall be served upon persons whose interests are directly prejudiced thereby in the same manner as a summons in a civil action may be served, and a true copy of such order shall also be posted on the front door of the courthouse of the county in which the alleged conditions originated. All persons whose interests are prejudiced or affected in any manner by any such order shall have the right to appear in person or by counsel at the hearing and to present evidence relevant to the subject of the hearing. Within twenty-four hours after completion of the hearing the director shall affirm, modify or set aside said order in accordance and consistent with the evidence adduced. Any person aggrieved by such action of the director may thereafter apply by petition to the circuit court of the county for a review of the director's action. The circuit court shall forthwith fix a time for hearing de novo upon the petition and shall, after such hearing, by order entered of record, affirm, modify or set aside, in whole or in part, the order and action of the director. Any person whose interests shall have been substantially affected by the final order of the circuit court may appeal the same to the Supreme Court of Appeals in the manner prescribed by law.

§22-5-9. Powers reserved to secretary of the Department of Health and Human Resources, Commissioner of Bur for Public Health, local health boards and political subdivisions; conflicting statutes repealed.

Nothing in this article affects or limits the powers or duties heretofore conferred by the provisions of chapter sixteen of this code upon the the Secretary of the Department of Health and Human Resources, the Commissioner of the Bureau for Public Health, county health boards, county health officers, municipal health boards, municipal health officers, combined boards of health or any other health agency or political subdivision of this state except insofar as such powers and duties might otherwise apply to the control, reduction or abatement of air pollution. All existing statutes or parts of statutes are, to the extent of their inconsistencies with the provisions of this article and to the extent that they might otherwise apply to the control, reduction or abatement of air pollution, hereby repealed: *Provided,* That no ordinance previously adopted by any municipality relating to the control, reduction or abatement of air pollution is repealed by this article.

§22-5-10. Records, reports, data or information; confidentiality; proceedings upon request to inspect or copy.

(a) All air quality data, emission data, permits, compliance schedules, orders of the director, board orders and any other information required by a federal implementation program (all for convenience hereinafter referred to in this section as "records, reports, data or information") obtained under this article shall be available to the public, except that upon a showing satisfactory to the director, by any person, that records, reports, data or information or any particular part thereof, to which the director has access under this article if made public, would divulge methods or processes entitled to protection as trade secrets of the person, the director shall consider these records, reports, data or information or a particular portion thereof confidential: *Provided,* That this confidentiality does not apply to the types and amounts of air pollutants discharged and that these records, reports, data or information may be disclosed to other officers, employees or authorized representatives of the state or of the federal environmental protection agency concerned with enforcing this article, the federal Clean Air Act, as amended, or the federal Resource Conservation and Recovery Act, as amended, when relevant to any official proceedings thereunder: *Provided, however,* That the officers, employees or authorized representatives of the state or federal environmental protection agency protect these records, reports, data or information to the same degree required of the director by this section. The director shall promulgate legislative rules regarding the protection of records, reports, data or information, or trade secrets, as required by this section.

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(b) Upon receipt of a request for records, reports, data or information which constitute trade secrets and prior to making a final determination to grant or deny the request, the director shall notify the person claiming that any record, report, data or information is entitled to protection as a trade secret, and allow the person an opportunity to respond to the request in writing.

(c) All requests to inspect or copy documents must state with reasonable specificity the documents or type of documents sought to be inspected or copied. Within five business days of the receipt of a request, the director or his or her designate shall by order: (1) Advise the person making the request of the time and place at which the person may inspect and copy the documents, which, if the request addresses information claimed as confidential, may not be sooner than thirty days following the date of the determination to disclose, unless an earlier disclosure date is agreed to by the person claiming the confidentiality; or (2) deny the request, stating in writing the reasons for denial. If the request addresses information claimed as confidential, notice of the action taken pursuant to this subsection shall also be provided to the person asserting the claim of confidentiality.

Any person adversely affected by a determination, by order or otherwise, regarding information confidentiality under this article may appeal the determination to the air quality board pursuant to the provisions of article one, chapter twenty-two-b of this code. The filing of a timely notice of appeal shall stay any determination, by order or otherwise, to disclose confidential information pending a final decision on the appeal. The scope of review is limited to the question of whether the records, reports, data or other information, or any particular part thereof sought to be inspected or copied, are entitled to be treated as confidential under subsection (a) of this section. The air quality board shall afford evidentiary protection in appeals as is necessary to protect the confidentiality of the information at issue, including the use of in camera proceedings and the sealing of records where appropriate.

(d) In lieu of the provision of chapter twenty-nine-b of this code, the provision of this section shall apply to determinations of confidentiality.

§22-5-11. Construction, modification or relocation permits required for stationary sources of air pollutants.

(a) Unless otherwise specifically provided in this article, no person shall construct, modify or relocate any stationary source of air pollutants without first obtaining a construction, modification or relocation permit as provided in this article.

(b) The secretary shall by rule specify the class or categories of stationary sources to which this section applies. Application for permits shall be made upon such form, in such manner, and within such time as the rule prescribes and shall include such information, as in the judgment of the secretary, will enable him or her to determine whether such source will be so designed as to operate in conformance with the provisions of this article or any rules of the secretary.

(c) Unless otherwise specifically provided in this article, the secretary shall issue a permit for a major stationary source within a reasonable time not to exceed three hundred sixty-five calendar days, after the secretary determines that the application is complete.

(d) Unless otherwise specifically provided in this article, the secretary shall issue a permit for all other sources including modifications of existing major stationary sources which are not major modifications within a reasonable time not to exceed ninety calendar days, after the date the secretary determines the application is complete. The Secretary may extend this time by thirty calendar days to allow for public comment.

(e) A permit application will be denied if the secretary determines that the proposed construction, modification or relocation will not be in accordance with this article or rules promulgated thereunder.

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(f) For purposes of this section, a modification is any physical change in, or change in the method of operation of, a stationary source which increases the amount of any air pollutant discharged by a source above the de minimis level set by the secretary.

(g) With respect to the construction of new nonmajor stationary sources, or modifications of nonmajor stationary sources, or modifications which are not major modifications to existing major stationary sources, or relocations of nonmajor stationary sources, the following requirements apply:

(1) The secretary shall issue an administrative update to a permit issued under this section with respect to any of these sources, unless he or she determines that the proposed administrative update will not be in accordance with this article or rules promulgated hereunder, in which case the secretary shall issue an order denying the administrative update. Any administrative update shall be issued by the secretary within a reasonable time not to exceed sixty calendar days after receipt of a complete application. Administrative updates are minor revisions of existing permits as further described and authorized by rule.

(2) The secretary shall, within a reasonable time not to exceed forty-five calendar days after the date the secretary determines that an application is complete, issue a registration under a general permit applicable to any of these sources, unless he or she determines that the proposed construction, modification or relocation will not be in accordance with this article or rules promulgated hereunder. General permits are permits authorizing the construction, modification or relocation of a category of sources by the same owner or operator or involving the same or similar processes or pollutants upon the terms and conditions specified in the general permit for those types of sources.

(3) The secretary shall, within a reasonable time not to exceed forty-five calendar days after receipt of a complete application, issue a temporary permit or a relocation permit, unless he or she determines that the proposed construction, modification or relocation will not be in accordance with this article or rules promulgated hereunder. Temporary permits are permits authorizing the owner or operator to make limited changes for limited periods of time as further described and authorized by rule.

(h) The secretary shall determine whether an application filed under this section is complete within thirty calendar days after receipt of that application at which time the secretary shall notify the applicant in writing as to whether the application is complete or specify any additional information required for the application to be complete.

(i) The secretary, shall propose rules for legislative approval in accordance with the provisions of article three, chapter twenty nine-a of this code, to implement the provisions of this section by August 1, 2008.

§22-5-11a. Activities authorized in advance of permit issuance.

(a) With respect to the modifications of nonmajor stationary sources, or modifications which are not major modifications to existing major stationary sources, the following activities are authorized in advance of permit issuance. Any authorized activities undertaken by or on behalf of the permit applicant prior to the issuance of a final permitting action by the secretary are undertaken at the permit applicant's own risk and with the knowledge that the application for a permit or permit modification may be denied:

(1) Receiving or storing on-site or off-site any equipment or supplies which make up in part or in whole an emission unit or any support equipment, facilities, building or structure.

(2) A person who holds an active West Virginia air quality permit issued under this article at an existing source, and who has applied to the secretary for permission to alter, expand or modify that source or to allow a new emissions unit at that source, may begin the construction of any such alteration, expansion, modification or new emission unit in advance of permit issuance in accordance with this section. The person may not operate any altered, expanded, modified or new emission unit without first obtaining an air quality permit as required by rules promulgated by the secretary.

(3) The following sources are ineligible for submission of an application for permission to commence construction in advance of permit issuance:

(A) Sources subject to the "Federal Clean Air Act" subsections 112(g) or 112(j).

(B) Sources seeking federally enforceable permit conditions in order to avoid otherwise applicable standards;

(C) Sources requiring a specific case-by-case emission limitation or standard under 45CSR21 or 45CSR27.

(4)(A) To qualify for the authorization to construct in advance of permit issuance as provided in this section, the permittee shall submit to the secretary an application for permission to commence construction in advance of permit issuance.

(B) Such application for permission to commence construction shall include all of the following:

(1) The name and location of the source and the name and address of the permittee;

(2) The permit number of each active permit issued under this article for such source;

(3) The nature of the sources and equipment associated with

such alteration, expansion, modification or new emission unit;

(4) An estimate of the maximum hourly and annual emissions of regulated air pollutants increased as a result of such alteration, expansion, modification or new emission unit;

(5) The air pollution control devices or methods that are to be employed in connection with the alteration, expansion, modification or new emission unit;

(6) A listing of the applicable state and federal air quality regulatory requirements for alteration, expansion, modification or new emission unit, and sufficient information which, in the judgement of the secretary, will demonstrate compliance with any applicable state and federal air quality regulatory requirements;

(7) The anticipated construction or building schedule for alteration, expansion, modification or new emission unit;

(8) A certification signed by the responsible official that the source, equipment and devices that are subject to a request for construction authorization will not be operated until the permittee has obtained a permit under rules promulgated by the secretary;

(9) A certification by the responsible official that any construction undertaken prior to the issuance of a final permit under rules of the secretary is undertaken at the permittee's own risk and with the knowledge that the permittee may be denied a permit or permit modification without regard to the permittee's financial investment or addition to or modification of the source;

(10) A certification signed by the responsible official that all of the information contained in the application is complete and accurate to the best of the responsible official's knowledge and ability; and

(11) Upon submission of the application for permission to construct, the applicant shall give notice by publishing a Class I legal advertisement of the applicant's intent to alter or expand the physical arrangement or operation of an existing stationary source and the opportunity to provide written comment to the secretary within thirty calendar days of the publication. The applicant shall post a visible and accessible sign, at a minimum 2 feet square, at the entrance to the source or proposed

site. The sign must be clearly marked indicating that an air quality permit has been applied for and include the West Virginia Division of Air Quality permitting section telephone number and web site for additional information. The applicant must post the sign for the duration of the public notice period. Public notice shall be in a newspaper having general circulation in the county or counties where the facility is located. The notice shall contain the information required by rules promulgated by the secretary. Within fifteen days of completion of the public comment period, the secretary shall consider and respond to all written comments. If the secretary finds that concerns raised by the public comment period give rise to issues or concerns that would cause a construction or operational permit not to be issued, the secretary may issue a revocation or stay of the authorization to construct until those issues or concerns are resolved.

(c) The secretary shall determine whether an application for permission to commence construction in advance of permit issuance is complete within fifteen calendar days after receipt of the application at which time the secretary shall notify the applicant in writing as to whether the application is complete or specify any additional information required for the application to be complete.

(d) Within fifteen calendar days after the secretary has made a determination that an application for permission to commence construction in advance of permit issuance is complete, unless the secretary for good cause shown, extends the fifteen day time period for up to an additional fifteen calendar days, the secretary shall notify the applicant in writing of his or her determination as to whether each of the following conditions has or has not been satisfied:

(1) The applicant is and has been for a period of at least three years in substantial compliance with all other active permits and applicable state and federal air quality regulatory requirements under this article;

(2) The applicant has demonstrated that the alteration, expansion, modification or new emission unit will be in compliance with all applicable state and federal air quality regulatory requirements;

(3) The alteration, expansion, modification or new emission unit will not interfere with attainment or maintenance of an applicable ambient air quality standard, cause or contribute to a violation of an applicable air quality increment or be inconsistent with the intent and purpose of this article;

(4) The facility will be altered or expanded so that it will be used for either the same or a similar use as the use already permitted;

(5) The alteration or expansion will not result in a disproportionate increase in size of the facility already permitted; and

(6) The alteration or expansion will result in the same or substantially similar emissions as the facility already permitted.

If the secretary finds that all of the conditions have been satisfied, the notice issued by the secretary shall state that construction of the alteration, expansion, modification or new emission unit in advance of permit issuance may begin immediately. If the secretary finds that one or more of the conditions has not been met, the notice shall state that the requested construction, alteration, expansion, modification or new emission unit may not begin prior to issuance of a new or modified permit.

(e) If at any time during the construction of such alteration, expansion, modification or new emission unit, the secretary determines that the source is not likely to qualify for a permit or permit modification under applicable rules, the secretary may order that construction cease until the secretary makes a decision on the application for a permit or permit modification. If the secretary orders that construction cease, then construction of the alteration, expansion, modification or new emission unit may resume only if the secretary either makes a subsequent written determination that the circumstances that resulted in such

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order have been adequately addressed or if the secretary issues a permit or permit modification under the rules that authorize construction to resume.

(f) The secretary shall evaluate an application for a permit or permit modification under the rules and make a decision on the same basis as if the construction of the alteration, expansion, modification or new emission unit in advance of permit issuance had not been authorized pursuant to this section. No evidence regarding any contract entered into, financial investment made, construction undertaken, or economic loss incurred by any person or permittee who proceeds under this section without first obtaining a permit under this article is admissible in any contested case or judicial proceeding involving any permit required under the rules. No evidence as to any determination or order by the secretary pursuant to this section shall be admissible in any contested case or judicial proceeding related to any permit required under this article.

(g) Any permittee who proceeds under this section shall be precluded from bringing any action, suit or proceeding against the state, the officials, agents, and employees of the state or the secretary for any loss resulting from any contract entered into, financial investment made, construction undertaken, or economic loss incurred by the permittee in reliance upon the provisions of this section.

(h) This section does not relieve any person of the obligation to comply with any other requirement of state law, including any requirement to obtain any other permit or approval prior to undertaking any activity associated with preparation of the site or the alteration or expansion of the physical arrangement or method of operation of a source at a facility for which a permit is required under the rules.

(i) This section does not relieve any person from any preconstruction or construction prohibition imposed by any federal requirement, federal delegation, federally approved requirement in any state implementation plan, or federally approved requirement under the Title V permitting program, as determined solely by the secretary. This section does not apply to any construction, alteration, or expansion that is subject to requirements for prevention of significant deterioration or federal nonattainment new source review, as determined solely by the secretary. This section does not apply if it is inconsistent with any federal requirement, federal delegation, federally approved requirement in any state implementation plan, or federally approved requirement under the Title V permitting program, as determined solely by the secretary.

(j) A permittee who submits an application to commence construction in advance of permit issuance under this section shall pay to the department a fee of $200 for each application submitted to cover a portion of the administrative costs of implementing this section.

(k) The secretary, in accordance with chapter twenty-nine-a of this code, shall propose legislative rule that may be necessary to implement the provisions of this section by August 1, 2008.

(l) The secretary is directed to report back to the Joint Committee on Government and Finance by January 1, 2010, on the impact of the implementation of the expedited permits authorized pursuant to this section. The report shall include, but not be limited to, assessments regarding the number and types of facilities utilizing this section, whether the agency has found this expedited process has assisted these facilities to implement construction and make revisions to their operations efficiently, without adverse impacts on the agency, the permitting process, or statewide air quality.

§22-5-12. Operating permits required for stationary sources of air pollution.

No person may operate a stationary source of air pollutants without first obtaining an operating permit as provided in this section. The director shall promulgate legislative rules, in accordance with chapter twenty-nine-a of this code, which

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specify classes or categories of stationary sources which are required to obtain an operating permit. The legislative rule shall provide for the form and content of the application procedure including time limitations for obtaining the required permits. Any person who has filed a timely and complete application for a permit or renewal thereof required by this section, and who is abiding by the requirements of this article and the rules promulgated pursuant thereto is in compliance with the requirements of this article and any rule promulgated thereunder until a permit is issued or denied. Any legislative rule promulgated pursuant to the authority granted by this section shall be equivalent to and consistent with rules and regulations adopted by the administrator of United States environmental protection agency pursuant to Title IV and Title V of the Clean Air Act Amendments of 1990, 42 U.S.C. §7651*et seq*. and 42 U.S.C. §7661 *et seq*., respectively: *Provided,* That such legislative rule may deviate from the federal rules and regulations where a deviation is appropriate to implement the policy and purpose of this article taking into account such factors unique to West Virginia.

§22-5-13. Consolidation of permits.

For permits required by sections eleven and twelve of this article, the director may incorporate the required permits with an existing permit or consolidate the required permits into a single permit.

§22-5-14. Administrative review of permit actions.

Any person whose interest may be affected, including, but not necessarily limited to, the applicant and any person who participated in the public comment process, by a permit issued, modified or denied by the secretary, or construction authorization pursuant to section eleven-a of this article, may appeal such action of the secretary to the air quality board pursuant to article one, chapter twenty-two-b of this code.

§22-5-15. Motor vehicle pollution, inspection and maintenance.

(a) As the state of knowledge and technology relating to the control of emissions from motor vehicles may permit or make appropriate and in furtherance of the purposes of this article, the director may provide by legislative rule for the control of emissions from motor vehicles. The legislative rule may prescribe requirements for the installation and use of equipment designed to reduce or eliminate emissions and for the proper maintenance of such equipment and of vehicles. Any legislative rule pursuant to this section shall be consistent with provisions of federal law, if any, relating to control of emissions from the vehicles concerned. The director shall not require, as a condition precedent to the initial sale of a vehicle or vehicular equipment, the inspection, certification or other approval of any feature or equipment designed for the control of emissions from motor vehicles, if such feature or equipment has been certified, approved or otherwise authorized pursuant to federal law.

(b) Except as permitted or authorized by law or legislative rule, no person shall fail to maintain in good working order or remove, dismantle or otherwise cause to be inoperative any equipment or feature constituting an operational element of the air pollution control system or mechanism of a motor vehicle required by rules of the director to be maintained in or on the vehicle. Any such failure to maintain in good working order or removal, dismantling or causing of inoperability subjects the owner or operator to suspension or cancellation of the registration for the vehicle by the Department of Transportation, Division of Motor Vehicles. The vehicle is not thereafter eligible for registration until all parts and equipment constituting operational elements of the motor vehicle have been restored, replaced or repaired and are in good working order.

(c) The Department of Transportation, Division of Motor Vehicles, Department of Administration, information and communication services division and the State Police shall make available technical information and records to the director to implement the legislative rule regarding motor vehicle pollution, inspection and maintenance. The director may promulgate a

legislative rule establishing motor vehicle pollution, inspection and maintenance standards and imposing an inspection fee at a rate sufficient to implement the motor vehicle inspection program and shall do so when required pursuant to federal law regarding attainment of ambient air quality standards.

(d) The director may promulgate a legislative rule requiring maintenance of features of equipment in or on motor vehicles for the purpose of controlling emissions therefrom and shall do so when required pursuant to federal law regarding attainment of ambient air quality standards, and no motor vehicle may be issued a Division of Motor Vehicles registration certificate, or the existing registration certificate shall be revoked, unless the motor vehicle has been found to be in compliance with the director's legislative rule.

(e) The remedies and penalties provided in this section and section one, article three, chapter seventeen-a of this code, apply to violations hereof and the provisions of sections six or seven of this article do not apply thereto.

(f) As used in this section "motor vehicle" has the same meaning as in chapter seventeen-c of this code.

§22-5-16. Small business environmental compliance assistance program, compliance advisory panel.

The secretary of the Department of Commerce, labor, and environmental resources shall establish a small business stationary source technical and environmental compliance assistance program which meets the requirements of Title V of the Clean Air Act Amendments of 1990, 42 U.S.C. §7661 et seq. A compliance advisory panel composed of seven members appointed as follows shall be created to periodically review the effectiveness and results of this assistance program:

(a) Two members who are not owners, nor representatives of owners, of small business stationary sources, selected by the Governor to represent the general public;

(b) One member selected by the Speaker of the House of Delegates who is an owner or who represents owners of small business stationary sources;

(c) One member selected by the minority leader of the House of Delegates who is an owner or who represents owners of small business stationary sources;

(d) One member selected by the President of the Senate who is an owner or who represents owners of small business stationary sources;

(e) One member selected by the minority leader of the Senate who is an owner or who represents owners of small business stationary sources; and

(f) One member selected by the director to represent the director.

§22-5-17. Interstate ozone transport.

(a) This section of the Air Pollution Control Act may be referred to as the Interstate Ozone Transport Oversight Act.

(b) The Legislature hereby finds that:

(1) The federal Clean Air Act, as amended, contains a comprehensive regulatory scheme for the control of emissions from mobile and stationary sources, which will improve ambient air quality and health and welfare in all parts of the nation.

(2) The number of areas unable to meet national ambient air quality standards for ozone has been declining steadily and will continue to decline with air quality improvements resulting from implementation of the federal Clean Air Act amendments of 1990, and the mobile and stationary source emission controls specified therein.

(3) Scientific research on the transport of atmospheric ozone across state boundaries is proceeding under the auspices of the United States environmental protection agency (U.S. EPA), state agencies, and private entities, which research will lead

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to improved scientific understanding of the causes and nature of ozone transport, and emission control strategies potentially applicable thereto.

(4) The northeast ozone transport commission established by the federal Clean Air Act Amendments of 1990 has proposed emission control requirements for stationary and mobile sources in certain northeastern states and the District of Columbia in addition to those specified by the federal Clean Air Act amendments of 1990.

(5) Membership of the northeast ozone transport commission includes, by statute, representatives of state environmental agencies and Governors' offices; similar representation is required in the case of other ozone transport commissions established by the Administrator of the United States environmental protection agency pursuant to Section 176A of the federal Clean Air Act, as amended.

(6) The northeast ozone transport commission neither sought nor obtained state Legislative Oversight or approval prior to reaching its decisions on mobile and stationary source requirements for states included within the northeast ozone transport region.

(7) The Commonwealth of Virginia and other parties have challenged the Constitutionality of the northeast ozone transport commission and its regulatory proposals under the guarantee, compact, and joinder clauses of the United States Constitution.

(8) The United States environmental protection agency, acting outside of the aforementioned statutory requirements for the establishment of new interstate transport commissions, is encouraging the State of West Virginia and twenty-four other states outside of the northeast to participate in multistate negotiations through the ozone transport assessment group; such negotiations are intended to provide the basis for an interstate memorandum of understanding or other agreement on ozone transport requiring reductions of emissions of nitrogen oxides or volatile organic compounds in addition to those specified by the federal Clean Air Act amendments of 1990, membership of the ozone transport assessment group consists of state and federal air quality officials, without state legislative representation or participation by the Governor.

(9) Emission control requirements exceeding those specified by federal law can adversely affect state economic development, competitiveness, employment, and income without corresponding environmental benefits; in the case of electric utility emissions of nitrogen oxides, it is estimated that control costs in addition to those specified by the federal Clean Air Act could exceed $5 billion annually in a thirty-seven state region of the eastern United States, including the State of West Virginia.

(10) Requiring certain eastern states to meet emission control requirements more stringent than those otherwise applicable to other states and unnecessary for environmental protection would unfairly affect interstate competition for new industrial development and employment opportunities.

(c) It is therefore directed that:

(1) Not later than ten days subsequent to the receipt by the director of the Division of Environmental Protection of any proposed memorandum of understanding or other agreement by the ozone transport assessment group, or similar group, potentially requiring the State of West Virginia to undertake emission reductions in addition to those specified by the federal Clean Air Act, the director of the Division of Environmental Protection shall submit such proposed memorandum or other agreement to the President of the Senate and the Speaker of the House of Delegates for consideration.

(2) Upon receipt of the aforesaid memorandum of understanding or agreement, the President and the Speaker shall refer the understanding or agreement to one or more appropriate legislative committees with a request that such committees convene one or more public hearings to receive comments from agencies of government and other interested parties on its

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prospective economic and environmental impacts on the State of West Virginia and its citizens, including impacts on energy use, taxes, economic development, utility costs and rates, competitiveness and employment.

(3) Upon completion of the public hearings required by the preceding subdivision, the committees(s) shall forward to the president and the speaker a report containing its findings and recommendations concerning any proposed memorandum of understanding or other agreement related to the interstate transport of ozone. The report shall make findings with respect to the economic, health, safety and welfare and environmental impacts on the State of West Virginia and its citizens, including impacts on energy use, taxes, economic development, utility costs and rates, competitiveness and employment.

(4) Upon receipt of the report required by the preceding subdivision, the president and speaker shall thereafter transmit the report to the Governor for such further consideration or action as may be warranted.

(5) Nothing in this section shall be construed to preclude the Legislature from taking such other action with respect to any proposed memorandum of understanding or other agreement related to the interstate transport of ozone as it deems appropriate.

(6) No person is authorized to commit the State of West Virginia to the terms of any such memorandum or agreement unless specifically approved by an act of the Legislature.

§22-5-18. Market-based banking and trading programs, emissions credits; director to promulgate rules.

(a) The director shall propose legislative rules for promulgation in accordance with article three, chapter twenty-nine-a of this code, to the full extent allowed by federal and state law, one or more rules establishing a voluntary emissions trading and banking program that provides incentives to make progress toward the attainment or maintenance of the national ambient air quality standards, the reduction or prevention of hazardous air contaminants or the protection of human health and welfare and the environment from air pollution.

(b) The director shall establish a system by legislative rule for quantifying, verifying, determining eligibility, registering, trading and using all emissions reduction credits, for banking and trading if achieved after January 1, 1991, to the extent permitted by federal law. Credits also shall be available for permanent shutdowns. Ten percent of any emission reduction credits registered with the director shall be retired from future use: *Provided,* That fifty percent of any emission reduction credits generated from permanent shutdowns prior to the effective date of the legislative rule or rules promulgated pursuant to this section shall be retired from future use. All other emissions reduction credits registered shall remain in effect until used and debited or retired. Credits not used within ten years shall be retired from future use. The director may charge a reasonable transaction fee at the time any credits are registered and shall deposit the fees in the air pollution control fund.

The division may establish the emissions trading program as a state, multistate or regional program as long as the program contributes to the goal of improving the air quality in West Virginia and in the air quality region where the source is located.

§22-5-19. Inventory of greenhouse gases.

(a) The secretary shall establish a program to inventory greenhouse gas emissions from major sources that are subject to mandatory federal greenhouse gases reporting requirements. The secretary shall obtain available emissions data directly from the appropriate federal entity, including the United States Environmental Protection Agency.

(b) As used in this section, "greenhouse gas" means carbon dioxide, methane, nitrous oxide, hydroflurocarbons, perfluorocarbons and sulfur hexafluoride.

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§22-5-20. Development of a state plan relating to carbon dioxide emissions from existing fossil fuel-fired electric generating units.

(a) *Legislative findings.* —

(1) The United States Environmental Protection Agency has proposed a federal rule pursuant to Section 111(d) of the Clean Air Act, 42 U. S. C. §7411(d), to regulate carbon dioxide emissions from electric generating units.

(2) The rule is expected to go into effect on or about June 30, 2015, and will require each state to submit a state plan pursuant to Section 111(d) that sets forth laws, policies and regulations that will be enacted by the state to meet the federal guidelines in the rule.

(3) The creation of this state plan necessitates establishment and creation of law affecting the economy and energy policy of this state.

(4) The Environmental Protection Agency has stated that any state plan it ultimately approves shall become enforceable federal law upon that state.

(5) The state disputes the jurisdiction and purported binding nature asserted by the Environmental Protection Agency through this rule, and reserves to itself those rights and responsibilities properly reserved to the State of West Virginia.

(6) Given the economic impact and potentially legally binding nature of the submission of a state plan, there is a compelling state interest to require appropriate legislative review and passage of law prior to submission, if any, of a state plan pursuant to Section 111(d) of the Clean Air Act.

(b) *Submission of a state plan.* — Absent specific legislative enactment granting such powers or rule-making authority, the Department of Environmental Protection or any other agency or officer of state government is not authorized to submit to the Environmental Protection Agency a state plan under this section, or otherwise pursuant to Section 111(d) of the Clean Air Act:*Provided,* That the Department of Environmental Protection, in consultation with the Department of Environmental Protection Advisory Council and other necessary and appropriate agencies and entities, may develop a proposed state plan in accordance with this section.

(c) *Development of a Proposed State Plan.* — (1) The Department of Environmental Protection shall, no later than one hundred eighty days after a rule is finalized by the Environmental Protection Agency that requires the state to submit a state plan under Section 111(d) of the Clean Air Act, 42 U. S. C. § 7411(d), submit to the Legislature a report regarding the feasibility of the state's compliance with the Section 111(d) rule. The report must include a comprehensive analysis of the effect of the Section 111(d) rule on the state, including, but not limited to, the need for legislative or other changes to state law, and the factors referenced in subsection (g) of this section. The report must make at least two feasibility determinations: (i) Whether the creation of a state plan is feasible based on the comprehensive analysis; and (ii) whether the creation of a state plan is feasible before the deadline to submit a state plan to Environmental Protection Agency under the Section 111(d) rule, assuming no extensions of time are granted by Environmental Protection Agency. If the department determines that a state plan is or is not feasible under clause (i) of this subsection, the report must explain why. If the department determines that a state plan is not feasible under clause (ii) of this subsection, it shall explain how long it requires to create a state plan and then endeavor to submit such a state plan to the Legislature as soon as practicable. Such state plan may be on a unit-specific performance basis and may be based upon either a rate-based model or a mass-based model.

(2) If the department determines that the creation of a state plan is feasible, it shall develop and submit the proposed state plan to the Legislature sitting in regular session, or in an extraordinary session convened for the purpose of consideration

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of the state plan, in sufficient time to allow for the consideration of the state plan prior to the deadline for submission to the Environmental Protection Agency.

(3) In addition to submitting the proposed state plan to the Legislature, the department shall publish the report and any proposed state plan on its website.

(d) If the department proposes a state plan to the Legislature in accordance with subsection (c) of this section, the department shall propose separate standards of performance for carbon dioxide emissions from existing coal-fired electric generating units in accordance with subsection (e) of this section and from existing natural gas-fired electric generating units in accordance with subsection (f) of this section. The standards of performance developed and proposed under any state plan to comply with Section 111 of the Clean Air Act should allow for greater flexibility and take into consideration the additional factors set forth in subsection (g) of this section as a part of any state plan to achieve targeted reductions in greenhouse gas emissions which are equivalent or comparable to the goals and marks established by federal guidelines.

(e) *Standards of performance for existing coal-fired electric generating units.* — Except as provided under subsection (g) of this section, the standard of performance proposed for existing coal-fired electric generating units under subsection (c) of this section may be based upon:

(1) The best system of emission reduction which, taking into account the cost of achieving the reduction and any nonair quality health and environmental impact and energy requirements, has been adequately demonstrated for coal-fired electric generating units that are subject to the standard of performance;

(2) Reductions in emissions of carbon dioxide that can reasonably be achieved through measures undertaken at each coal-fired electric generating unit; and

(3) Efficiency and other measures that can be undertaken at each coal-fired electric generating unit to reduce carbon dioxide emissions from the unit without switching from coal to other fuels or limiting the economic utilization of the unit.

(f) *Standards of performance for existing natural gas-fired electric generating units.* — Except as provided in subsection (g) of this section, the standard of performance proposed for existing gas-fired electric generating units under subsection (c) of this section may be based upon:

(1) The best system of emission reduction which, taking into account the cost of achieving the reduction and any nonair quality health and environmental impact and energy requirements, has been adequately demonstrated for natural gas-fired electric generating units that are subject to the standard of performance;

(2) Reductions in emissions of carbon dioxide that can reasonably be achieved through measures at each natural gas-fired electric generating unit; and

(3) Efficiency and other measures that can be undertaken at the unit to reduce carbon dioxide emissions from the unit without switching from natural gas to other lower-carbon fuels or limiting the economic utilization of the unit.

(g) Flexibility in establishing standards of performance. — In developing a flexible state plan to achieve targeted reductions in greenhouse gas emissions, the department shall endeavor to establish an achievable standard of performance for any existing fossil fuel-fired electric generating unit, and examine whether less stringent performance standards or longer compliance schedules may be implemented or adopted for existing fossil fuel-fired electric generating units in comparison to the performance standards established for new, modified or reconstructed generating units, based on the following:

(1) Consumer impacts, including any disproportionate impacts of energy price increases on lower income populations;

(2) Nonair quality health and environmental impacts;

(3) Projected energy requirements;

(4) Market-based considerations in achieving performance standards;

(5) The costs of achieving emission reductions due to factors such as plant age, location or basic process design;

(6) Physical difficulties with or any apparent inability to feasibly implement certain emission reduction measures;

(7) The absolute cost of applying the performance standard to the unit;

(8) The expected remaining useful life of the unit;

(9) The impacts of closing the unit, including economic consequences such as expected job losses at the unit and throughout the state in fossil fuel production areas including areas of coal production and natural gas production and the associated losses to the economy of those areas and the state, if the unit is unable to comply with the performance standard;

(10) Impacts on the reliability of the system; and

(11) Any other factors specific to the unit that make application of a modified or less stringent standard or a longer compliance schedule more reasonable.

(h) *Legislative consideration of proposed state plan under Section 111(d) of the Clean Air Act.* — (1) If the department submits a proposed state plan to the Legislature under this section, the Legislature may by act, including presentment to the Governor: (i) Authorize the department to submit the proposed state plan to the Environmental Protection Agency; (ii) authorize the department to submit the state plan with amendment; or (iii) not grant such rulemaking or other authority to the department for submission and implementation of the state plan.

(2) If the Legislature fails to enact or approve all or part of the proposed state plan, the department may propose a new or modified state plan to the Legislature in accordance with the requirements of this section.

(3) If the Environmental Protection Agency does not approve the state plan, in whole or in part, the department shall as soon as practicable propose a modified state plan to the Legislature in accordance with the requirements of this section.

(i) *Legal effect.* — Any obligation created by this section and any state plan submitted to the Environmental Protection Act pursuant to this section shall have no legal effect if:

(1) The Environmental Protection Agency fails to issue, or withdraws, its federal rules or guidelines for reducing carbon dioxide emissions from existing fossil fuel-fired electrical generating units under 42 U. S. C. §7411(d); or,

(2) A court of competent jurisdiction invalidates the Environmental Protection Agency's federal rules or guidelines issued to regulate emissions of carbon dioxide from existing fossil fuel-fired electrical generating units under 42 U. S. C. §7411(d).

(j) *Effective date.* — All provisions of this section are effective immediately upon passage.

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W. Va. Code § 29B-1-1 et seq.

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CHAPTER 29B. FREEDOM OF INFORMATION.

ARTICLE 1. PUBLIC RECORDS.

§29B-1-1. Declaration of policy.

Pursuant to the fundamental philosophy of the American Constitutional form of representative government which holds to the principle that government is the servant of the people, and not the master of them, it is hereby declared to be the public policy of the State of West Virginia that all persons are, unless otherwise expressly provided by law, entitled to full and complete information regarding the affairs of government and the official acts of those who represent them as public officials and employees. The people, in delegating authority, do not give their public servants the right to decide what is good for the people to know and what is not good for them to know. The people insist on remaining informed so that they may retain control over the instruments of government they have created. To that end, the provisions of this article shall be liberally construed with the view of carrying out the above declaration of public policy.

§29B-1-2. Definitions.

As used in this article:

(1) "Custodian" means the elected or appointed official charged with administering a public body.

(2) “Law-enforcement officer” shall have the same definition as this term is defined in W.Va. Code §30-29-1: *Provided*, That for purposes of this article, “law-enforcement officer” shall additionally include those individuals defined as “chief executive” in W.Va. Code §30-29-1.

(3) "Person" includes any natural person, corporation, partnership, firm or association.

(4) "Public body" means every state officer, agency, department, including the executive, legislative and judicial departments, division, bureau, board and commission; every county and city governing body, school district, special district, municipal corporation, and any board, department, commission council or agency thereof; and any other body which is created by state or local authority or which is primarily funded by the state or local authority.

(5) "Public record" includes any writing containing information prepared or received by a public body, the content or context of which, judged either by content or context, relates to the conduct of the public's business.

(6) "Writing" includes any books, papers, maps, photographs, cards, tapes, recordings or other documentary materials regardless of physical form or characteristics.

§29B-1-3. Inspection and copying of public record; requests of Freedom of Information Act requests registry.

(a) Every person has a right to inspect or copy any public record of a public body in this state, except as otherwise expressly provided by section four of this article.

(b) A request to inspect or copy any public record of a public body shall be made directly to the custodian of such public record.

(c) The custodian of any public records, unless otherwise expressly provided by statute, shall furnish proper and reasonable opportunities for inspection and examination of the records in his or her office and reasonable facilities for making memoranda or abstracts therefrom, during the usual business hours, to all persons having occasion to make examination of them. The custodian of the records may make reasonable rules and regulations necessary for the protection of the records and to prevent interference with the regular discharge of his or her duties. If the records requested exist in

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magnetic, electronic or computer form, the custodian of the records shall make copies available on magnetic or electronic media, if so requested.

(d) All requests for information must state with reasonable specificity the information sought. The custodian, upon demand for records made under this statute, shall as soon as is practicable but within a maximum of five days not including Saturdays, Sundays or legal holidays:

(1) Furnish copies of the requested information;

(2) Advise the person making the request of the time and place at which he or she may inspect and copy the materials; or

(3) Deny the request stating in writing the reasons for such denial. A denial shall indicate that the responsibility of the custodian of any public records or public body to produce the requested records or documents is at an end, and shall afford the person requesting them the opportunity to institute proceedings for injunctive or declaratory relief in the circuit court in the county where the public record is kept.

(e) The public body may establish fees reasonably calculated to reimburse it for its actual cost in making reproductions of records. A public body may not charge a search or retrieval fee or otherwise seek reimbursement based on a man-hour basis as part of costs associated with making reproduction of records.

(f) The Secretary of State shall maintain an electronic data base of notices of requests as required by section three-a of this article. The database shall be made available to the public via the Internet and shall list each freedom of information request received and the outcome of the request. The Secretary of State shall provide on the website a form for use by a public body to report the results of the freedom of information request, providing the nature of the request and the public body's response thereto, whether the request was granted, and if not, the exemption asserted under section four of this article to deny the request.

§29B-1-3a. Reports to Secretary of State by public bodies.

(a) Beginning January 1, 2016, each public body that is in receipt of a freedom of information request shall provide information to the Secretary of State relating to, at a minimum, the nature of the request, the nature of the public body's response, the time-frame that was necessary to comply in full with the request; and the amount of reimbursement charged to the requester for the freedom of information request: *Provided*, That the public body shall not provide to the Secretary of State the public records that were the subject of the FOIA request.

(b) Pursuant to article three, chapter twenty-nine-a of this code, the Secretary of State shall propose rules and emergency rules for legislative approval relating to the creation and maintenance of a publically accessible database available on the Secretary of State's website; the establishment of forms and procedures for submission of information to the Secretary of State by the public body; and for other procedures and policies consistent with this section.

§29B-1-4. Exemptions.

(a) There is a presumption of public accessibility to all public records, subject only to the following categories of information which are specifically exempt from disclosure under the provisions of this article:

(1) Trade secrets, as used in this section, which may include, but are not limited to, any formula, plan pattern, process, tool, mechanism, compound, procedure, production data or compilation of information which is not patented which

is known only to certain individuals within a commercial concern who are using it to fabricate, produce or compound an article or trade or a service or to locate minerals or other substances, having commercial value, and which gives its users an opportunity to obtain business advantage over competitors;

(2) Information of a personal nature such as that kept in a personal, medical or similar file, if the public disclosure of the information would constitute an unreasonable invasion of privacy, unless the public interest by clear and convincing evidence requires disclosure in this particular instance:*Provided,* That this article does not preclude an individual from inspecting or copying his or her own personal, medical or similar file;

(3) Test questions, scoring keys and other examination data used to administer a licensing examination, examination for employment or academic examination;

(4) Records of law-enforcement agencies that deal with the detection and investigation of crime and the internal records and notations of such law-enforcement agencies which are maintained for internal use in matters relating to law enforcement;

(5) Information specifically exempted from disclosure by statute;

(6) Records, archives, documents or manuscripts describing the location of undeveloped historic, prehistoric, archaeological, paleontological and battlefield sites or constituting gifts to any public body upon which the donor has attached restrictions on usage or the handling of which could irreparably damage the record, archive, document or manuscript;

(7) Information contained in or related to examination, operating or condition reports prepared by, or on behalf of, or for the use of any agency responsible for the regulation or supervision of financial institutions, except those reports which are by law required to be published in newspapers;

(8) Internal memoranda or letters received or prepared by any public body ;

(9) Records assembled, prepared or maintained to prevent, mitigate or respond to terrorist acts or the threat of terrorist acts, the public disclosure of which threaten the public safety or the public health;

(10) Those portions of records containing specific or unique vulnerability assessments or specific or unique response plans, data, databases and inventories of goods or materials collected or assembled to respond to terrorist acts; and communication codes or deployment plans of law-enforcement or emergency response personnel;

(11) Specific intelligence information and specific investigative records dealing with terrorist acts or the threat of a terrorist act shared by and between federal and international law-enforcement agencies, state and local law-enforcement and other agencies within the Department of Military Affairs and Public Safety;

(12) National security records classified under federal executive order and not subject to public disclosure under federal law that are shared by federal agencies and other records related to national security briefings to assist state and local government with domestic preparedness for acts of terrorism;

(13) Computing, telecommunications and network security records, passwords, security codes or programs used to respond to or plan against acts of terrorism which may be the subject of a terrorist act;

(14) Security or disaster recovery plans, risk assessments, tests or the results of those tests;

(15) Architectural or infrastructure designs, maps or other records that show the location or layout of the facilities where computing, telecommunications or network infrastructure used to plan against or respond to terrorism are located or

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planned to be located;

(16) Codes for facility security systems; or codes for secure applications for facilities referred to in subdivision (15) of this subsection;

(17) Specific engineering plans and descriptions of existing public utility plants and equipment;

(18) Customer proprietary network information of other telecommunications carriers, equipment manufacturers and individual customers, consistent with 47 U.S.C. §222;

(19) Records of the Division of Corrections, Regional Jail and Correctional Facility Authority and the Division of Juvenile Services relating to design of corrections, jail and detention facilities owned or operated by the agency, and the policy directives and operational procedures of personnel relating to the safe and secure management of inmates or residents, that if released, could be used by an inmate or resident to escape a facility, or to cause injury to another inmate, resident or to facility personnel ;

(20) Information related to applications under section four, article seven, chapter sixty-one of this code, including applications, supporting documents, permits, renewals, or any other information that would identify an applicant for or holder of a concealed weapon permit: *Provided*: That information in the aggregate that does not identify any permit holder other than by county or municipality is not exempted: *Provided, however*, That information or other records exempted under this subdivision may be disclosed to a law enforcement agency or officer: (i) to determine the validity of a permit, (ii) to assist in a criminal investigation or prosecution, or (iii) for other lawful law-enforcement purposes; and

(21) Personal information of law-enforcement officers maintained by the public body in the ordinary course of the employer-employee relationship. As used in this paragraph, “personal information” means a law-enforcement officer’s social security number, health information, home address, personal address, personal telephone numbers and personal email addresses and those of his or her spouse, parents and children as well as the names of the law-enforcement officer’s spouse, parents and children.

(b) As used in subdivisions (9) through (16), inclusive, subsection (a) of this section, the term "terrorist act" means an act that is likely to result in serious bodily injury or damage to property or the environment and is intended to:

(1) Intimidate or coerce the civilian population;

(2) Influence the policy of a branch or level of government by intimidation or coercion;

(3) Affect the conduct of a branch or level of government by intimidation or coercion; or

(4) Retaliate against a branch or level of government for a policy or conduct of the government.

(c) The provisions of subdivisions (9) through (16), inclusive, subsection (a) of this section do not make subject to the provisions of this chapter any evidence of an immediate threat to public health or safety unrelated to a terrorist act or the threat of a terrorist act which comes to the attention of a public entity in the course of conducting a vulnerability assessment response or similar activity.

§29B-1-5. Enforcement.

(1) Any person denied the right to inspect the public record of a public body may institute proceedings for injunctive or declaratory relief in the circuit court in the county where the public record is kept.

(2) In any suit filed under subsection one of this section, the court has jurisdiction to enjoin the custodian or public body from withholding records and to order the production of any records improperly withheld from the person seeking

disclosure. The court shall determine the matter de novo and the burden is on the public body to sustain its action. The court, on its own motion, may view the documents in controversy in camera before reaching a decision. Any custodian of any public records of the public body found to be in noncompliance with the order of the court to produce the documents or disclose the information sought, may be punished as being in contempt of court.

(3) Except as to causes the court considers of greater importance, proceedings arising under subsection one of this section shall be assigned for hearing and trial at the earliest practicable date.

§29B-1-6. Violation of article; penalties.

Any custodian of any public records who willfully violates the provisions of this article is guilty of a misdemeanor and, upon conviction thereof, shall be fined not less than $200 nor more than $1,000, or be imprisoned in the county jail for not more than twenty days, or, in the discretion of the court, by both fine and imprisonment.

§29B-1-7. Attorney fees and costs.

Any person who is denied access to public records requested pursuant to this article and who successfully brings a suit filed pursuant to section five of this article shall be entitled to recover his or her attorney fees and court costs from the public body that denied him or her access to the records.

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Proposed Revision to the West Virginia Section 111(d) State Plan
Control of Air Pollution from Municipal Solid Waste Landfills

Notice of Public Hearing and Public Comment Period

The West Virginia Department of Environmental Protection (DEP), Division of Air Quality (DAQ) is revising the Clean Air Act § 111(d) State Plan for the Control of Air Pollution from Municipal Solid Waste (MSW) Landfills. This plan revision incorporates changes made to rule 45 C.S.R. 23 - "Control of Air Pollution from Municipal Solid Waste Landfills". This rule change requires DAQ to submit a State Plan revision for MSW landfills and conduct a public hearing.

DAQ will hold a public hearing on Monday, August 20, 2018 beginning at 5:30 p.m. on a proposed revised State Plan to implement Emission Guidelines for MSW landfills.

The public hearing is being held to satisfy the requirements for submitting a revised § 111(d) State Plan. The revised plan will be submitted to the United States Environmental Protection Agency (USEPA) and supplemented by legislative rule 45 C.S.R. 23 - "Control of Air Pollution from Municipal Solid Waste Landfills," which became effective June 1, 2018. This rule gives West Virginia regulatory authority to adopt, implement and enforce the Emission Guidelines requirements for existing MSW landfills and the New Source Performance Standards for new facilities, either directly through administrative action requiring compliance with 45 C.S.R. 23, or by including such requirements in State permits, where applicable.

The public hearing will be held in the Dolly Sods conference room #1125, at the DEP Charleston headquarters located at 601 57th Street SE, Charleston, West Virginia 25304. Written and oral comments will be accepted until the close of the hearing on August 20, 2018. Comments will also be accepted by e-mail if transmitted by 5:30 p.m. on August 20, 2018 to richard.a.boehm@wv.gov . Written comments may also be submitted at the following address:

William F. Durham, Director
Division of Air Quality
601 57th Street, SE
Charleston, WV 25304

Comments submitted by mail must be postmarked by August 20, 2018. Copies of the proposed revised State Plan will be available for public review on or before August 20, 2018, at the Department of Environmental Protection, Division of Air Quality's Charleston office at the above address, or on the website at http://www.dep.wv.gov/daq/publicnoticeandcomment/Pages/default.aspx. Appendices to the Plan will be available upon request.

Message

From: Gordon, Michael [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=689E550DAE8B4233B609488D20B6ADB5-GORDON, MICHAEL_CA1435D930]
Sent: 5/22/2019 7:14:14 PM
To: Buss, Jeffrey [Buss.Jeffrey@epa.gov]
Subject: RE: MSW Landfill State Plans Update
Attachments: DE-MSWL-TSD.doc

Hi Jeff,

I didn't want to circulate the TSD widely because it still needs polishing but here is the preliminary draft of Delaware's TSD. Please let me know if you have any questions.

-Mike

Mike Gordon
Acting Branch Chief
Permits Branch (3AD10)
Air and Radiation Division
EPA Region III
1650 Arch Street
Philadelphia, PA 19103
(215)-814-2039
Gordon.Mike@epa.gov

From: Buss, Jeffrey
Sent: Wednesday, May 22, 2019 1:40 PM
To: Gordon, Michael <Gordon.Mike@epa.gov>; Sheppard, Andrew <sheppard.andrew@epa.gov>; Boyce, Kenneth <boyce.kenneth@epa.gov>; BECKHAM, LISA <BECKHAM.LISA@EPA.GOV>; Dunkins, Robin <Dunkins.Robin@epa.gov>; Palmer, Karen <Palmer.Karen@epa.gov>; Marks, Matthew <Marks.Matthew@epa.gov>
Cc: Costa, Allison <Costa.Allison@epa.gov>; Bartley, Richard <Bartley.Richard@epa.gov>; Gardner, Allison <Gardner.Allison@epa.gov>; Lo, Doris <Lo.Doris@epa.gov>; Riedel, Brian <riedel.brian@epa.gov>; Zimpfer, Amy <Zimpfer.Amy@epa.gov>; Bigioni, Neil <bigioni.neil@epa.gov>
Subject: RE: MSW Landfill State Plans Update

Thanks Mike, could you please pass along the TSD as well?

Jeff

From: Gordon, Michael
Sent: Wednesday, May 22, 2019 9:46 AM
To: Sheppard, Andrew <sheppard.andrew@epa.gov>; Boyce, Kenneth <boyce.kenneth@epa.gov>; Buss, Jeffrey <Buss.Jeffrey@epa.gov>; BECKHAM, LISA <BECKHAM.LISA@EPA.GOV>; Dunkins, Robin <Dunkins.Robin@epa.gov>; Palmer, Karen <Palmer.Karen@epa.gov>; Marks, Matthew <Marks.Matthew@epa.gov>
Cc: Costa, Allison <Costa.Allison@epa.gov>; Bartley, Richard <Bartley.Richard@epa.gov>; Gardner, Allison <Gardner.Allison@epa.gov>; Lo, Doris <Lo.Doris@epa.gov>; Riedel, Brian <riedel.brian@epa.gov>; Zimpfer, Amy <Zimpfer.Amy@epa.gov>; Bigioni, Neil <bigioni.neil@epa.gov>
Subject: RE: MSW Landfill State Plans Update

Hi All,

Following up on today's call. Here is Region 3's NPR for the Delaware landfill state plan. I am trying to put this the package in concurrence at the regional level late next week, so input by Wednesday/early Thursday would be greatly appreciated Ex. 5 - Deliberative Process.

-Mike

Mike Gordon
Acting Branch Chief
Permits Branch (3AD10)
Air and Radiation Division
EPA Region III
1650 Arch Street
Philadelphia, PA 19103
(215)-814-2039
Gordon.Mike@epa.gov

-----Original Appointment-----
From: Sheppard, Andrew
Sent: Monday, May 20, 2019 1:43 PM
To: Sheppard, Andrew; Gordon, Michael; Boyce, Kenneth; Buss, Jeffrey; BECKHAM, LISA; Dunkins, Robin; RTP-OAQPS-919-541-4332-SPPD/Phone-Line/RTP-OAQPS-BLDG-C; Palmer, Karen; Marks, Matthew
Cc: Costa, Allison; Bartley, Richard; Gardner, Allison; Lo, Doris; Riedel, Brian; Zimpfer, Amy; Bigioni, Neil
Subject: MSW Landfill State Plans Update
When: Wednesday, May 22, 2019 11:00 AM-11:30 AM (UTC-05:00) Eastern Time (US & Canada).
Where: (919)541-4332

Wanted to set some time to discuss the court hearing and progress on reviewing state plans with you all. Please forward this along to anyone else in your Region you'd like to be on the call.

Message

From: Gordon, Michael [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=689E550DAE8B4233B609488D20B6ADB5-GORDON, MICHAEL_CA1435D930]
Sent: 5/15/2019 12:22:14 PM
To: Bartley, Richard [Bartley.Richard@epa.gov]
CC: Boyce, Kenneth [boyce.kenneth@epa.gov]; Shar, Alan [shar.alan@epa.gov]
Subject: RE: CAA Section 111(d) Plans for MSW Landfills
Attachments: WV-MSWL-TSD.doc; DE-MSWL-TSD.doc

Here are the TSD's. I am currently working on them and they are not a finished product. I used a Maryland Hospital/Medical/Infectious Waste Incinerator state plan TSD as a template for both of these so there is some incorrect info in them.

Mike Gordon
Acting Branch Chief
Permits Branch (3AD10)
Air and Radiation Division
EPA Region III
1650 Arch Street
Philadelphia, PA 19103
(215)-814-2039
Gordon.Mike@epa.gov

From: Bartley, Richard
Sent: Tuesday, May 14, 2019 1:01 PM
To: Gordon, Michael <Gordon.Mike@epa.gov>
Cc: Boyce, Kenneth <boyce.kenneth@epa.gov>; Shar, Alan <shar.alan@epa.gov>
Subject: CAA Section 111(d) Plans for MSW Landfills

Hi Mike –

Thanks so much for returning my call today regarding the subject project. Anything you could send along that might help us in our development of the FRN packages for New Mexico and Albuquerque would be greatly appreciated – draft FRNs, draft TSDs, the paper you mentioned on IBR, etc.

I'm copying my air program folks who will be working on this project, Ken Boyce and Alan Shar, who would also appreciate anything you can share.

Thanks again for your assistance,

Rick

Richard H. Bartley | Air Programs Coordinator | Office of Regional Counsel | U.S. EPA Region 6 | 214.665.8046

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Message

From: Gordon, Michael [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=689E550DAE8B4233B609488D20B6ADB5-GORDON, MICHAEL_CA1435D930]
Sent: 5/15/2019 12:19:47 PM
To: Bartley, Richard [Bartley.Richard@epa.gov]
CC: Boyce, Kenneth [boyce.kenneth@epa.gov]; Shar, Alan [shar.alan@epa.gov]
Subject: RE: CAA Section 111(d) Plans for MSW Landfills
Attachments: NPR DE MSWL State Plan.docx; NPR WV MSWL State Plan.docx

Hi All,

I'll be sending a few emails just to keep things organized...Here are the DRAFT NPRs for WV and DE. They have not been vetted by ORC or anyone else but me as of yet. Ex. 5 - Deliberative Process

Ex. 5 - Deliberative Process

Mike Gordon
Acting Branch Chief
Permits Branch (3AD10)
Air and Radiation Division
EPA Region III
1650 Arch Street
Philadelphia, PA 19103
(215)-814-2039
Gordon.Mike@epa.gov

From: Bartley, Richard
Sent: Tuesday, May 14, 2019 1:01 PM
To: Gordon, Michael <Gordon.Mike@epa.gov>
Cc: Boyce, Kenneth <boyce.kenneth@epa.gov>; Shar, Alan <shar.alan@epa.gov>
Subject: CAA Section 111(d) Plans for MSW Landfills

Hi Mike –

Thanks so much for returning my call today regarding the subject project. Anything you could send along that might help us in our development of the FRN packages for New Mexico and Albuquerque would be greatly appreciated – draft FRNs, draft TSDs, the paper you mentioned on IBR, etc.

I'm copying my air program folks who will be working on this project, Ken Boyce and Alan Shar, who would also appreciate anything you can share.

Thanks again for your assistance,

Rick

Richard H. Bartley | Air Programs Coordinator | Office of Regional Counsel | U.S. EPA Region 6 | 214.665.8046

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immediately notify me and delete the transmission and all attachments from your machine including all storage media, whether electronic or hard copy.

Message

From: Gordon, Michael [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=689E550DAE8B4233B609488D20B6ADB5-GORDON, MICHAEL_CA1435D930]
Sent: 11/28/2018 4:19:14 PM
To: Becoat, gregory [becoat.gregory@epa.gov]
Subject: RE: update?

Hi Greg, no updates for me!

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: Becoat, gregory
Sent: Wednesday, November 28, 2018 11:04 AM
To: Gordon, Michael <Gordon.Mike@epa.gov>
Subject: Re: update?

Hello,

Hope all is well. Any updates on

ACE

CISWI

MSW Landfills?

Thanks!

From: Becoat, gregory
Sent: Tuesday, October 30, 2018 12:55:33 PM
To: Gordon, Michael
Subject: RE: update?

Solid thanks!

From: Gordon, Michael
Sent: Tuesday, October 30, 2018 10:02 AM
To: Becoat, gregory <becoat.gregory@epa.gov>
Subject: RE: update?

Hi Greg, Here are updates on the following items:

ACE Rule:
Public comment period ends on October 31, 2018. A public hearing was held in Chicago on October 1, 2018. EPA will respond to public comments in a final rule.

CISWI:
EPA received the CISWI plan submitted in August of 2018 and will act on it in a notice of proposed rulemaking.

MSW Landfills:
EPA received the MSWL state plan submitted by the WVDEP in September of 2019. EPA previously said that we are not prioritizing acting on MSWL state plans. On October 23, the Acting Administrator signed a proposal to extend plan submission deadlines for the 2016 Emission Guidelines for existing Municipal Solid Waste (MSW) Landfills. The proposed amendments would align state plan timing requirements with those recently proposed in the Affordable Clean Energy (ACE) rule. The new timing requirements would extend state plan submission deadlines to August 29, 2019. EPA would review submitted state plans for completeness within 6 months from submission and review for approval within 12 months of the completeness review. In aligning with the ACE proposal, the new timing requirements would also extend the timing to 2 years for the EPA to promulgate a federal plan for states that fail to submit an approvable state plan. In addition, EPA is taking comment on whether previously submitted state plans should be resubmitted in order to provide consistency and clarity for compliance.

Mike Gordon
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1650 Arch Street
Philadelphia, PA 19103
(215)-814-2039
Gordon.Mike@epa.gov

From: Becoat, gregory
Sent: Tuesday, October 30, 2018 9:54 AM
To: Gordon, Michael <Gordon.Mike@epa.gov>
Subject: update?

111(d) Plans Update

- CISWI Plan (submitted 8/2018)
- MSW Landfill Plan (submitted 9/2018)

Hello,

Is this you as well?

Gregory Becoat
Office of Air Program Planning

U. S. Environmental Protection Agency, Region III
1650 Arch Street (3AP30)
Philadelphia, PA 19103-2023
Work: (215) 814-2036
Fax: (215) 814-2124

Message

From: Joshua Shodeinde -MDE- [joshua.shodeinde@maryland.gov]
Sent: 9/7/2017 1:51:53 PM
To: Gordon, Michael [Gordon.Mike@epa.gov]; Karen Sabasteanski [karen.sabasteanski@deq.virginia.gov]
Subject: Re: Copy of Virginia's §111(d) Plan for MSWLs

Karen - thanks!

Mike - do you have any insights from EPA you can share on how states should proceed? I was under the impression that they stay for NSPS Subpart XXX and EG Subpart Cf was in effect until August 29, 2017.

Best,

Joshua Shodeinde

On Thu, Sep 7, 2017 at 9:42 AM, Sabasteanski, Karen (DEQ) <Karen.Sabasteanski@deq.virginia.gov> wrote:

> Hi, Joshua. I am happy to share our plan with you. But before you go any further, please contact Mike Gordon in EPA Region III. The landfill rules are on hold for now:
>
> https://www.gpo.gov/fdsys/pkg/FR-2017-05-31/pdf/2017-10752.pdf
>
> so although we have a plan, we never submitted it to EPA, and we won't submit it until this is cleared up.
>
> Let me know if you have any questions about the attached, keeping in mind that it may change depending on how EPA decides to proceed.
>
> Thanks,
>
> Karen
>
> Karen Sabasteanski
> Office of Regulatory Affairs
> Virginia Department of Environmental Quality
> karen.sabasteanski@deq.virginia.gov
> (804) 698-4426
>
> **From:** Joshua Shodeinde -MDE- [mailto:joshua.shodeinde@maryland.gov]
> **Sent:** Thursday, September 07, 2017 9:29 AM
> **To:** Sabasteanski, Karen (DEQ)
> **Subject:** Copy of Virginia's §111(d) Plan for MSWLs
>
> Good Morning Karen,
>
> My name is Joshua Shodeinde with the Maryland Department of the Environment, and I will be taking the lead on submitting Maryland's §111(d) Plan for MSWLs. I noticed that VA has already submitted their plan after seeing this notice. Are you able to share with me Virginia's §111(d) Plan for MSWLs?
>
> Thank you for your time,

Joshua Shodeinde

--

Joshua Shodeinde

Regulatory and Compliance Engineer

Maryland Department of the Environment

Air and Radiation Administration

Air Quality Planning Program

1800 Washington Blvd, STE 730

Baltimore, MD 21230

410.537-3866

joshua.shodeinde@maryland.gov

Click here to complete a three question customer experience survey.

--
Joshua Shodeinde
Regulatory and Compliance Engineer

Maryland Department of the Environment
Air and Radiation Administration
Air Quality Planning Program
1800 Washington Blvd, STE 730
Baltimore, MD 21230
410.537-3866
joshua.shodeinde@maryland.gov

Click here to complete a three question customer experience survey.

Message

From: Sabasteanski, Karen (DEQ) [Karen.Sabasteanski@deq.virginia.gov]
Sent: 9/7/2017 1:42:32 PM
To: Joshua Shodeinde -MDE- [joshua.shodeinde@maryland.gov]
CC: Gordon, Michael [Gordon.Mike@epa.gov]
Subject: RE: Copy of Virginia's §111(d) Plan for MSWLs
Attachments: pln ltr.docx; PLN-1.doc; PLN-2.doc; PLN-3.docx; PRT1.doc; PRT1A.doc; PRT1A-1.docx; PRT1B.doc; PRT1B1-1.docx; PRT1C.doc; PRT2.doc; index.doc

Hi, Joshua. I am happy to share our plan with you. But before you go any further, please contact Mike Gordon in EPA Region III. The landfill rules are on hold for now:
https://www.gpo.gov/fdsys/pkg/FR-2017-05-31/pdf/2017-10752.pdf
so although we have a plan, we never submitted it to EPA, and we won't submit it until this is cleared up.

Let me know if you have any questions about the attached, keeping in mind that it may change depending on how EPA decides to proceed.

Thanks,
Karen

Karen Sabasteanski
Office of Regulatory Affairs
Virginia Department of Environmental Quality
karen.sabasteanski@deq.virginia.gov
(804) 698-4426

From: Joshua Shodeinde -MDE- [mailto:joshua.shodeinde@maryland.gov]
Sent: Thursday, September 07, 2017 9:29 AM
To: Sabasteanski, Karen (DEQ)
Subject: Copy of Virginia's §111(d) Plan for MSWLs

Good Morning Karen,

My name is Joshua Shodeinde with the Maryland Department of the Environment, and I will be taking the lead on submitting Maryland's §111(d) Plan for MSWLs. I noticed that VA has already submitted their plan after seeing this notice. Are you able to share with me Virginia's §111(d) Plan for MSWLs?

Thank you for your time,

Joshua Shodeinde

--
Joshua Shodeinde
Regulatory and Compliance Engineer

Maryland Department of the Environment
Air and Radiation Administration
Air Quality Planning Program
1800 Washington Blvd, STE 730
Baltimore, MD 21230

410.537-3866
joshua.shodeinde@maryland.gov

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Message

From: Gordon, Michael [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=689E550DAE8B4233B609488D20B6ADB5-GORDON, MICHAEL_CA1435D930]
Sent: 11/15/2017 1:33:26 PM
To: 'Husain Waheed -MDE-' [husain.waheed@maryland.gov]
Subject: RE: Landfill Permit Review and Applicable Standards/Requirements

Hi Husain,

Here is what our website says:

In May 2017, EPA announced the agency is reconsidering several issues in the 2016 final rules for Municipal Solid Waste (MSW) Landfills New Source Performance Standards (NSPS) and Emission Guidelines (EG). On May 31, 2017, the EPA issued a 90-day stay on the 2016 NSPS and EG. Because this 90-stay expired on August 29, 2017, the 2016 rules are currently in effect. The EPA still intends to complete the reconsideration process granted by the Administrator. EPA will continue to work with states and stakeholders as we develop a path forward on these separate but related actions.

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

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: Husain Waheed -MDE- [mailto:husain.waheed@maryland.gov]
Sent: Wednesday, November 15, 2017 7:22 AM
To: Gordon, Michael <Gordon.Mike@epa.gov>
Subject: Re: Landfill Permit Review and Applicable Standards/Requirements

Mike, Would it be possible to provide an update on the landfill guidelines ? "In May 2017, **EPA** announced the agency is reconsidering several issues in the 2016 final rules for Municipal Solid Waste (MSW) **Landfills** New Source Performance **Standards** (NSPS) and Emission **Guidelines** (EG). On May 31, 2017, the **EPA** issued a 90-day stay on the 2016 NSPS and EG." I am off today but will try to call tomorrow. Please let me know a suitable time range to call tomorrow if possible. It would be helpful for Compliance to know about the status. Thanks.

Husain

Virus-free. www.avast.com

On Tue, Aug 1, 2017 at 2:56 PM, Gordon, Michael <Gordon.Mike@epa.gov> wrote:

Hi Husain,

Absent any federal plan or state plan in place there are no applicable requirements under title v that need to be included in a permit with respect to the newest round of landfill rulemaking.

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: Husain Waheed -MDE- [mailto:husain.waheed@maryland.gov]
Sent: Tuesday, August 01, 2017 2:09 PM
To: Gordon, Michael <Gordon.Mike@epa.gov>
Subject: Landfill Permit Review and Applicable Standards/Requirements

Mike, We are in the process of reviewing a landfill permit and would like to find out about any EPA recommendation with respect to the federal applicable standards/requirements. Please let me know the best time to discuss. Thanks.

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Message

From: Gordon, Michael [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=689E550DAE8B4233B609488D20B6ADB5-GORDON, MICHAEL_CA1435D930]
Sent: 2/12/2018 5:41:34 PM
To: Fernandez, Cristina [Fernandez.Cristina@epa.gov]; George Aburn -MDE- [george.aburn@maryland.gov]
CC: Spielberger, Susan [spielberger.susan@epa.gov]; duke, gerallyn [duke.gerallyn@epa.gov]
Subject: RE: Status of MSW Landfills NSPS and EG

Hi Tad,

Thanks for your question regarding the landfill NSPS and emission guidelines. Here is the most recent status of the two rules:

Emissions Guidelines
Under the emissions guidelines, Clean Air Act section 111(d) state plans for addressing existing landfills were due May 30, 2017. Since the Agency is reconsidering various issues regarding the landfill regulations, at this time we do not plan to prioritize the review of these state plans nor are we working to issue a Federal Plan for states that failed to submit a state plan. A number of states have expressed concern that their failure to submit a state plan could subject them to sanctions under the Clean Air Act. As the Agency has previously explained, states that fail to submit state plans are not subject to sanctions (*e.g.*, loss of federal highway funds). Therefore, states should not be concerned regarding any sanction.

New Source Performance Standards
EPA plans to align the MSW landfills NSPS reconsideration 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 would 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 of these regulations. EPA continues to consider whether additional steps could be appropriate during reconsideration. During this interim period, the NSPS is still in place (promulgated in 2016). Companies that have specific questions regarding their obligations to comply with the NSPS should contact the appropriate EPA regional office.

There has been some confusion surrounding the rule because of recent news article saying we were no longer pursuing the stay of the rules. What I am hearing from HQs, though, is that these articles mistook the landfill rule with another action EPA recently took. The takeway message is still the same – we do not plan to prioritize review of state plans or issue a federal plan for states that failed to submit a state plan. If something changes I will be sure to let you know. Please let me know if you have any questions.

-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: Fernandez, Cristina
Sent: Friday, February 09, 2018 2:03 PM
To: George Aburn -MDE- <george.aburn@maryland.gov>
Cc: Spielberger, Susan <spielberger.susan@epa.gov>; duke, gerallyn <duke.gerallyn@epa.gov>; Gordon, Michael <Gordon.Mike@epa.gov>
Subject: RE: Status of MSW Landfills NSPS and EG

Hi Tad,

I will have Mike Gordon of my staff contact you on Monday to answer any questions that you might have.

Have a good weekend, Cristina

Cristina Fernandez, Director
Air Protection Division (3AP00)
U. S. Environmental Protection Agency, Region III
1650 Arch Street
Philadelphia, PA 19103-2023
Work: (215) 814-2178
Cell: (215) 375-0847

From: diane.nelson@maryland.gov [mailto:diane.nelson@maryland.gov] **On Behalf Of** George Aburn -MDE-
Sent: Friday, February 09, 2018 1:45 PM
To: Fernandez, Cristina <Fernandez.Cristina@epa.gov>
Cc: Spielberger, Susan <spielberger.susan@epa.gov>
Subject: Status of MSW Landfills NSPS and EG

Cristina,

MDE is currently evaluating strategies to address methane emissions from municipal solid waste (MSW) landfills in Maryland. We've had a series of internal and public meetings over the past year, seeking input from various stakeholders concerning the topic. We have also been following EPA actions related to minimizing methane emissions from MSW landfills, including NSPS Subpart XXX and emission guidelines (EG) Subpart Cf.

At this point, we would like to move forward with taking specific action to address methane emissions from MSW landfills. Ideally, we would like to blend our efforts with EPA efforts.

Can you tell us anything about the status of the NSPS Subpart XXX and emission guidelines EG Subpart Cf? Do you have any guidance on what states should do?

Thanks,
Tad

--
George (Tad) S. Aburn, Jr., Director
MDE-Air & Radiation Administration
1800 Washington Boulevard
Baltimore MD 21230
410-537-3255 (phone)
410-537-3391 (fax)
george.aburn@maryland **.gov (email)**

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Message

From: Gordon, Michael [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=689E550DAE8B4233B609488D20B6ADB5-GORDON, MICHAEL_CA1435D930]
Sent: 5/21/2019 4:51:44 PM
To: Bigioni, Neil [bigioni.neil@epa.gov]
Subject: DE Landfill state plan
Attachments: NPR DE MSWL State Plan.docx; DE-MSWL-TSD.doc; EPA Final MSWL State Plan - 5-11-17 Clean.pdf; Final Reg 1120 7 11 17.pdf; Hrg Cert 5 30 17.pdf; Proposed MSWL State Plan - 3-12AB.pdf; Reg 1120 HO Report5 23 17.pdf; Sec Order 2017-A-0015.pdf; Submittal Ltr Reg 1120 10 10 17.pdf; 1120-30 Proposed 3-12.pdf

Hi Neil,

Docs are attached, for the DE submittal I think the "EPA Final MSWL State Plan - 5-11-17 Clean" has all the other documents in it.

-Mike

Mike Gordon
Acting Branch Chief
Permits Branch (3AD10)
Air and Radiation Division
EPA Region III
1650 Arch Street
Philadelphia, PA 19103
(215)-814-2039
Gordon.Mike@epa.gov

Message

From: Gordon, Michael [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=689E550DAE8B4233B609488D20B6ADB5-GORDON, MICHAEL_CA1435D930]
Sent: 5/8/2019 6:59:49 PM
To: Snyder, Doug [Snyder.Doug@epa.gov]; Gardner, Allison [Gardner.Allison@epa.gov]
CC: Stoltzfus, Robert [Stoltzfus.Robert@epa.gov]
Subject: RE: MSWL
Attachments: NPR WV MSWL State Plan.docx; NPR DE MSWL State Plan.docx

Here are the two notices of proposed rulemaking for the DE and WV municipal solid waste landfills. Ex. 5 - Deliberative Process
Ex. 5 - Deliberative Process
Ex. 5 - Deliberative Process My target date is to get the NPR signed by June 1(early June), which means we have about two weeks to put this in to concurrence.

Mike Gordon
Acting Branch Chief
Permits Branch (3AD10)
Air and Radiation Division
EPA Region III
1650 Arch Street
Philadelphia, PA 19103
(215)-814-2039
Gordon.Mike@epa.gov

From: Snyder, Doug
Sent: Wednesday, May 08, 2019 1:53 PM
To: Gardner, Allison <Gardner.Allison@epa.gov>
Cc: Gordon, Michael <Gordon.Mike@epa.gov>; Stoltzfus, Robert <Stoltzfus.Robert@epa.gov>
Subject: FW: MSWL

Mike,

Isn't it great that you are acting manager when this happens?! Anyway, I forwarded this to Allison, the new branch chief, because she will ultimately decide. However, I think the answer is that Bob Stoltzfus and/or myself, and/or any other branch attorney who is needed to meet the court-ordered deadline, will work on these SIPs. You can count on us!

Doug

From: Gordon, Michael
Sent: Wednesday, May 08, 2019 1:48 PM
To: Snyder, Doug <Snyder.Doug@epa.gov>
Subject: MSWL

Hi Doug,

FYI...we got an adverse decision on landfills and are now under a 4 month court ordered deadline to finalize the WV and DE state plans. This is a fairly tight turnaround, especially if we get comments. Will you be the ORC contact? I have some questions on a state plan I am reviewing.

Mike Gordon

Acting Branch Chief
Permits Branch (3AD10)
Air and Radiation Division
EPA Region III
1650 Arch Street
Philadelphia, PA 19103
(215)-814-2039
Gordon.Mike@epa.gov

Message

From: Gordon, Michael [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=689E550DAE8B4233B609488D20B6ADB5-GORDON, MICHAEL_CA1435D930]
Sent: 5/8/2019 5:48:20 PM
To: Snyder, Doug [Snyder.Doug@epa.gov]
Subject: MSWL
Attachments: 1156000-1156981-https-ecf-cand-uscourts-gov-doc1-035117945431.pdf

Hi Doug,

FYI…we got an adverse decision on landfills and are now under a 4 month court ordered deadline to finalize the WV and DE state plans. This is a fairly tight turnaround, especially if we get comments. Will you be the ORC contact? I have some questions on a state plan I am reviewing.

Mike Gordon
Acting Branch Chief
Permits Branch (3AD10)
Air and Radiation Division
EPA Region III
1650 Arch Street
Philadelphia, PA 19103
(215)-814-2039
Gordon.Mike@epa.gov

Message

From: Gordon, Michael [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=689E550DAE8B4233B609488D20B6ADB5-GORDON, MICHAEL_CA1435D930]
Sent: 4/22/2019 7:11:21 PM
To: Bradley, Megan [Bradley.Megan@epa.gov]
Subject: Issue paper for Wednesday's briefing
Attachments: Landfill Issue Paper.docx

Hi Megan,

Can you attach this issue paper for Wednesday's landfill briefing with Cristina? Thanks!

Mike Gordon
Acting Branch Chief
Permits Branch (3AD10)
Air and Radiation Division
EPA Region III
1650 Arch Street
Philadelphia, PA 19103
(215)-814-2039
Gordon.Mike@epa.gov

Message

Sent: 3/26/2019 9:12:34 PM
To: Fiedler, Kerri [Fiedler.Kerri@epa.gov]
Subject: FY 2019 6-Month Workplan Additions

Kerri,

Following up on our staff meeting, I have made the following modifications to the "Section 129/111 Actions" cell of the table:

"We have adopted a preliminary timeline and checklist for the 111(d)/129 plan receipt, review and approval process that is more in line with the SIP review schedule, as suggested by the proposed ACE rule. We have maintained coordination with the national section 129 working group composed of regional and headquarters staff through regular teleconference calls on evolving section 129/111 issues, including, but not limited to: reconsideration of the municipal solid waste landfill NSPS and Emission Guidelines (EG), technical amendments to the commercial and industrial solid waste incinerators NSPS and EG, and changing 40 CFR part 60 and 62 general requirements for plan approval and federal enforcement."

Gregory Lohrke
U.S. EPA Region 8 | Indoor Air, Toxics & Transportation Unit
(303) 312-6396

Message

From: Dobrahner, Jaslyn [Dobrahner.Jaslyn@epa.gov]
Sent: 5/15/2019 9:25:17 PM
To: Lohrke, Gregory [lohrke.gregory@epa.gov]
Subject: FW: Court Ruling on 2016 Municipal Solid Waste Landfill Emission Guidelines

Hi Greg –

I gather that you will be responding to Montana, correct?

Thank you!

Jaslyn

Jaslyn Dobrahner
U.S. EPA, Region 8
(303) 312-6252

From: Ackerlund, Julie <JAckerlund@mt.gov>
Sent: Wednesday, May 15, 2019 9:41 AM
To: Dobrahner, Jaslyn <Dobrahner.Jaslyn@epa.gov>; Lohrke, Gregory <lohrke.gregory@epa.gov>
Cc: eulrich2@mt.gov
Subject: Court Ruling on 2016 Municipal Solid Waste Landfill Emission Guidelines

Hi Jaslyn and Greg,

I have been reading about the federal court decision from earlier this month. The ruling requires EPA to enforce the 2016 municipal solid waste landfill rules. The decisions sets deadlines this fall for EPA to complete review of submitted Subpart Cf state plans, and for EPA to have a completed federal.

In 2017, Montana suspended its work on a state plan because EPA indicated it would not be reviewing them. Can you tell us how EPA plans to response to this court decision?

Montana is still considering a state plan.

Thanks,

Julie Ackerlund, MSE | Air Quality Planner
(406) 444-4267 | JAckerlund@mt.gov
Air Quality Bureau
DEQ Montana Department of Environmental Quality

Message

From: Fulton, Abby [Fulton.Abby@epa.gov]
Sent: 5/9/2019 6:24:05 PM
To: Lohrke, Gregory [lohrke.gregory@epa.gov]
Subject: FW: States Plans for MSW Landfills Subpart Cf
Attachments: Decision and order from judge.pdf

Greg,
Please see the email below from Andrew. Does this impact any Region 8 states? Also, do you want me to ask Andrew to add you to his email distribution list so that you're included on any future communication on this topic?

Abby L. Fulton
Air Quality Planning Branch
U.S. EPA, Region 8
(303) 312-6563

From: Sheppard, Andrew
Sent: Thursday, May 9, 2019 10:14 AM
To: Bird, Patrick <Bird.Patrick@epa.gov>; Bellizzi, Carol <Bellizzi.Carol@epa.gov>; Gordon, Michael <Gordon.Mike@epa.gov>; McNeal, Dave <Mcneal.Dave@epa.gov>; Sieffert, Margaret <Sieffert.Margaret@epa.gov>; Boyce, Kenneth <boyce.kenneth@epa.gov>; Casburn, Tracey <casburn.tracey@epa.gov>; Fulton, Abby <Fulton.Abby@epa.gov>; Buss, Jeffrey <Buss.Jeffrey@epa.gov>; BECKHAM, LISA <BECKHAM.LISA@EPA.GOV>; Glass, Geoffrey <GLASS.GEOFFREY@EPA.GOV>
Cc: Dunkins, Robin <Dunkins.Robin@epa.gov>
Subject: RE: States Plans for MSW Landfills Subpart Cf

Hello all,

We received a decision in this lawsuit on Monday, summary attached. The judge ruled that the plaintiffs have standing. He ordered for us to have 4 months to approve/disapprove already submitted state plans within 4 months (by Sept. 6, 2019) and promulgate a federal plan in 6 months (by Nov. 6, 2019). The court agreed with EPA that it has no jurisdiction over future state plan submissions.

Additionally, we do plan to finalize the Adopting Subpart Ba requirements action for Subpart Cf that was proposed last year. Once final (targeting mid-June), this will move the state plan due date out to August of this year and adjust our review time to 18 months (up to 6 months for a completeness check, then 12 months to review once deemed complete). A federal plan would then be due 2 years after individual states fails to submit an approvable plan. Once finalized, EPA will return to the judge with the new dates from this action and ask him to review his decision.

Once any new information becomes available regarding any of this, I will pass it along to you all.

Thanks,

Andy Sheppard
U.S. EPA, Sector Policies and Programs Division, OAQPS
Natural Resources Group
(919)541-4161

From: Sheppard, Andrew
Sent: Monday, February 04, 2019 3:55 PM
To: Bird, Patrick <Bird.Patrick@epa.gov>; Bellizzi, Carol <Bellizzi.Carol@epa.gov>; Gordon, Michael

<Gordon.Mike@epa.gov>; McNeal, Dave <Mcneal.Dave@epa.gov>; Frank, Nathan <frank.nathan@epa.gov>; Boyce, Kenneth <boyce.kenneth@epa.gov>; Casburn, Tracey <casburn.tracey@epa.gov>; Fulton, Abby <Fulton.Abby@epa.gov>; Buss, Jeffrey <Buss.Jeffrey@epa.gov>; BECKHAM, LISA <BECKHAM.LISA@EPA.GOV>; Narvaez, Madonna <Narvaez.Madonna@epa.gov>
Cc: Palmer, Karen <Palmer.Karen@epa.gov>
Subject: States Plans for MSW Landfills Subpart Cf
Importance: High

Hello all,

In the Cal vs EPA case regarding failure to review state plans and implement a federal plan for landfills, California has asked the court that:

- EPA Should Be Ordered to Review Existing State Plans Within Thirty Days
- EPA Should Be Ordered to Promulgate a Federal Plan Within Five Months
- EPA Should Be Ordered to Respond to Any Future State Plans Within Sixty Days of Submission
- EPA Should Be Ordered to File Status Reports Every Sixty Days

We wanted to get a sense of what state plans have been sent in officially. We know about California, New Mexico, Arizona, West Virginia and Delaware. If you have any other submitted state plans, could you please forward those to Karen (cc'd) and I along with dates that they were submitted as well as any correspondence with the states and if it's a full blown plan or just an IBR. Additionally, we wanted to gauge from each region what kind of timeline would be manageable to review and approve these plans. We want to use this information to respond to California in this case with a more do-able timeframe. We have heard from a few regions that 4 months or so would be more realistic but that even more time would be best due to current workload. If you've already sent us this information these past couple of weeks, thanks so much! Also, if you aren't the correct contact for the region please forward to the correct person.

Please let us know in the next day or so as we have to respond to the court by February 19th.

Thanks so much!

Andy Sheppard
U.S. EPA, Sector Policies and Programs Division, OAQPS
Natural Resources Group
(919)541-4161

Message

From: Morales, Monica [Morales.Monica@epa.gov]
Sent: 4/29/2019 8:20:48 PM
To: Lohrke, Gregory [lohrke.gregory@epa.gov]
Subject: FW: MSW Landfill Plan

FYI.

Monica Morales
Acting Deputy Director
Air and Radiation Division (8ARD)
U.S. EPA Region 8
1595 Wynkoop Street
Denver, Colorado 80202-1129
Phone: (303) 312-6936
morales.monica@epa.gov

From: Morales, Monica
Sent: Monday, April 29, 2019 2:20 PM
To: martygray@utah.gov
Cc: Bryce Bird <bbird@utah.gov>
Subject: FW: MSW Landfill Plan

Sorry Marty, I used the wrong email.

Monica Morales
Acting Deputy Director
Air and Radiation Division (8ARD)
U.S. EPA Region 8
1595 Wynkoop Street
Denver, Colorado 80202-1129
Phone: (303) 312-6936
morales.monica@epa.gov

From: Morales, Monica
Sent: Monday, April 29, 2019 2:19 PM
To: Bryce Bird <bbird@utah.gov>; mgray@utah.gov
Subject: MSW Landfill Plan

Hi Bryce and Marty – Per our midyear call this afternoon, I'm following up with an email regarding a potential Utah Municipal Solid Waste (MSW) Landfill Plan.

The EPA published a proposed rule on October 30, 2018 (83 FR 54527), setting a new deadline for state municipal solid waste landfill plan submittals. If this rule is finalized, the new submittal deadline for state plans under the Emission Guidelines of 40 CFR part 60, subpart Cf will be August 29, 2019.

Is Utah anticipating developing and submitting a 111(d) state plan for existing municipal solid waste landfills? Or, will Utah be submitting a negative declaration because there are no designated facilities within the state's jurisdiction?

Monica Morales
Acting Deputy Director
Air and Radiation Division (8ARD)
U.S. EPA Region 8
1595 Wynkoop Street
Denver, Colorado 80202-1129
Phone: (303) 312-6936
morales.monica@epa.gov

Message

From: Fallon, Gail [fallon.gail@epa.gov]
Sent: 12/6/2018 8:52:58 PM
To: Lohrke, Gregory [lohrke.gregory@epa.gov]
CC: Duraski, Robert [Duraski.Robert@epa.gov]
Subject: RE: Question from SD on Landfill 111d plans

Thank you – That's very helpful.

From: Lohrke, Gregory
Sent: Thursday, December 6, 2018 1:50 PM
To: Fallon, Gail <fallon.gail@epa.gov>
Cc: Duraski, Robert <Duraski.Robert@epa.gov>
Subject: RE: Question from SD on Landfill 111d plans

Hi Gail,

Kyrik should have my contact information already.

As for the question: The State should submit a section 111(d) state plan for relevant sources by the plan submittal deadline found in the respective Emission Guidelines subpart of 40 CFR part 60. For 'existing' MSW landfills as defined under 40 CFR 60 subpart Cf, this deadline was May 30, 2017. However, following a stay and proposed reconsideration of the emission guidelines, on Oct 30, 2018, the EPA issued a proposal to extend plan submission deadlines to August 29, 2019 and adjust 111(d) plan review timelines to match SIP review timelines. Best counsel is to shoot for that date at this point.

During this time, the 2016 NSPS for 'new' MSW landfills is still in effect, and a state which has received delegation of section 112 authorities should update state rules accordingly to receive automatic delegation of 40 CFR 60 subpart XXX.

From: Fallon, Gail
Sent: Thursday, December 6, 2018 1:25 PM
To: Lohrke, Gregory <lohrke.gregory@epa.gov>
Cc: Duraski, Robert <Duraski.Robert@epa.gov>
Subject: Question from SD on Landfill 111d plans

Hi Greg – On the permitting side of the house, SD recently had a question about if the proper EPA direction was still not to submit a 111d plan until EPA develops guidance. The state is wondering if/when they need to provide a 111d plan and update the state rules. I'm not sure which newish landfill rule they might be talking about. Could I just provide your contact information to SD's Kyrik Rombough and eliminate the middle man?

Thanks,
Gail

Gail Fallon
Acting Air Permitting and Monitoring Unit Chief
EPA Region 8
1595 Wynkoop Street, Mail Code 8P-AR
Denver, CO 80202
(303) 312-6281

Message

From: Farris, Laura [Farris.Laura@epa.gov]
Sent: 10/25/2018 2:36:06 PM
To: Lohrke, Gregory [lohrke.gregory@epa.gov]
Subject: RE: Proposal: Plan Submission Deadlines for the 2016 Emission Guidelines for existing Municipal Solid Waste (MSW) Landfills

Thanks, Greg!

From: Lohrke, Gregory
Sent: Tuesday, October 23, 2018 4:32 PM
To: Morales, Monica <Morales.Monica@epa.gov>; Farris, Laura <Farris.Laura@epa.gov>
Cc: Fiedler, Kerri <Fiedler.Kerri@epa.gov>
Subject: RE: Proposal: Plan Submission Deadlines for the 2016 Emission Guidelines for existing Municipal Solid Waste (MSW) Landfills

I wanted to follow up on this after participating in the monthly section 129 workgroup (which tangentially discusses 111(d) issues). At least one other regional contact in the 129 workgroup is on the landfill rule reconsideration working group. Of some note is that this reconsideration working group apparently considered it premature to have a definite (or even a proposed) timing for the reconsidered MSW landfill rule, or for the submittal and review of 111(d) state plans related to that rule.

Key points:

- The proposed ACE rule would align the timeline of future 111(d) state plan submittals and Federal plan development to match that of SIPs and FIPs
- The EPA will be using this lengthened timeline for the MSW landfill EG [giving states until August 29, 2019 to submit a plan]
- There is a caveat that finalization of this state plan timeline is dependent on finalization of the proposed changes made by the ACE rule to 40 CFR part 60 [August 29, 2019 may not be permanent as the submittal deadline].

From: Lohrke, Gregory
Sent: Tuesday, October 23, 2018 12:54 PM
To: Morales, Monica <Morales.Monica@epa.gov>; Farris, Laura <Farris.Laura@epa.gov>
Subject: RE: Proposal: Plan Submission Deadlines for the 2016 Emission Guidelines for existing Municipal Solid Waste (MSW) Landfills

Thanks Monica

From: Morales, Monica
Sent: Tuesday, October 23, 2018 12:12 PM
To: Lohrke, Gregory <lohrke.gregory@epa.gov>; Farris, Laura <Farris.Laura@epa.gov>
Subject: FW: Proposal: Plan Submission Deadlines for the 2016 Emission Guidelines for existing Municipal Solid Waste (MSW) Landfills

Monica S. Morales
Director, Air Program (8P-AR)
U.S. EPA Region 8
1595 Wynkoop Street
Denver, Colorado 80202-1129

Phone: (303) 312-6936
morales.monica@epa.gov

From: Perez, Idalia
Sent: Tuesday, October 23, 2018 12:11 PM
To: Air Division Directors and Deputies <Air_Division_Directors_and_Deputies@epa.gov>
Subject: Proposal: Plan Submission Deadlines for the 2016 Emission Guidelines for existing Municipal Solid Waste (MSW) Landfills

ADDs,

Today, the Acting Administrator signed a proposal to extend plan submission deadlines for the 2016 Emission Guidelines for existing Municipal Solid Waste (MSW) Landfills. The proposed amendments would align state plan timing requirements with those recently proposed in the Affordable Clean Energy (ACE) rule. The new timing requirements would extend state plan submission deadlines to August 29, 2019. EPA would review submitted state plans for completeness within 6 months from submission and review for approval within 12 months of the completeness review. In aligning with the ACE proposal, the new timing requirements would also extend the timing to 2 years for the EPA to promulgate a federal plan for states that fail to submit an approvable state plan. In addition, EPA is taking comment on whether previously submitted state plans should be resubmitted in order to provide consistency and clarity for compliance.

The pre-publication version of the proposal is available at: https://www.epa.gov/stationary-sources-air-pollution/municipal-solid-waste-landfills-new-source-performance-standards

Feel free to share this link with your key stakeholder groups.

Idalia M. Pérez, Ph.D. | OAR Lead Region Coordinator
U.S. Environmental Protection Agency – Region 9
75 Hawthorne St. (AIR-1), San Francisco, CA 94105
P: 415.972.3248 | email: perez.idalia@epa.gov
OAR Lead Region SharePoint Site

Our mission is to protect human health and the environment.

Message

From: Ackerlund, Julie [JAckerlund@mt.gov]
Sent: 5/31/2018 4:30:14 PM
To: Lohrke, Gregory [lohrke.gregory@epa.gov]
Subject: Inquiry on Municipal Solid Waste Rules Update

Hi Greg,

I just want to check in with you to find out if you have learned anything new about the municipal solid waste NSPS rule and emission guidelines. Is EPA still reconsidering the Subpart XXX with other methane regulations? I haven't seen any news about this rule for quite some time and we have been consistent with our message to industry that it's a regulation they must be in compliance with.

The other question is if there has been any movement to review the state plans for the emission guidelines of Subpart Cf. I know several states had submitted state plans and I had read some news that there was a push to get EPA to review those plans. Montana has not completed a state plan. So I am wondering if EPA is starting to review state plans or if EPA is making plans to prepare a federal plan?

Thanks for any news and information you have to share.

Regards,

Julie Ackerlund, MSE | Air Quality Planner
(406) 444-4267 | JAckerlund@mt.gov
Air Quality Bureau
DEQ Montana Department of Environmental Quality

Message

From: Fallon, Gail [fallon.gail@epa.gov]
Sent: 11/1/2018 10:08:21 PM
To: 'martygray@utah.gov' [martygray@utah.gov]; 'Rombough, Kyrik' [Kyrik.Rombough@state.sd.us]; 'Hea - CDPHE, Roland' [roland.hea@state.co.us]; Semerad, Jim L. [jsemerad@nd.gov]; 'Merkel, Julie' [jmerkel@mt.gov]; 'Andrew Keyfauver' [andrew.keyfauver@wyo.gov]; 'Melissa Meares' [melissa.meares@wyo.gov]
CC: Morales, Monica [Morales.Monica@epa.gov]
Subject: Ameresco JCL letter, common control
Attachments: Ameresco JCL letter 10-16-18.pdf

Good afternoon,
Attached, for your information, is a recent EPA response letter to Wisconsin regarding a source determination review for a landfill and a collocated energy company.

Gail Fallon
Acting Air Permitting and Monitoring Unit Chief
EPA Region 8
1595 Wynkoop Street, Mail Code 8P-AR
Denver, CO 80202
(303) 312-6281

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
RESEARCH TRIANGLE PARK, NC 27711

October 16, 2018

OFFICE OF
AIR QUALITY PLANNING
AND STANDARDS

Ms. Gail Good, Director
Bureau of Air Management
Wisconsin Department of Natural Resources
P.O. Box 7921
Madison, Wisconsin 53707

Dear Ms. Good:

On July 13, 2018, the Wisconsin Department of Natural Resources (WDNR) transmitted a letter to the U.S. Environmental Protection Agency (EPA) requesting EPA's review of a source determination that WDNR is making for a landfill (Janesville City/Rock County Landfill, or "JCL") and a collocated energy company (Ameresco Janesville LLC, or "Ameresco"). In this letter, WDNR asked whether EPA agreed with WDNR's conclusion that "JCL will be under 'common control' with Ameresco and that the two entities should be considered a single stationary source for the purpose of determining major source status" under the Clean Air Act (CAA or Act) permitting programs that WDNR administers. EPA understands this request to address whether these two entities should be considered part of the same "major source" for the operating permit program under title V of the CAA and/or part of the same "stationary source" for the New Source Review (NSR) preconstruction permit programs under title I of the CAA.[1] EPA commonly refers to these types of questions as "source determinations." Given that Wisconsin's title V and NSR programs have been approved by EPA, WDNR has primary responsibility to make this determination based on its EPA-approved rules, and this letter does not constitute a source determination by EPA regarding JCL or Ameresco.[2] EPA hopes that the following discussion is helpful to WDNR as it makes its final permitting decision with respect to JCL and Ameresco.

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[1] Under the federal and state rules governing these permitting programs, entities may be considered part of the same "major source" or "stationary source" if they (1) belong to the same major industrial grouping (2-digit Standard Industrial Classification (SIC) code); (2) are located on one or more contiguous or adjacent properties; and (3) are under the control of the same person (or persons under common control). *See* 42 U.S.C. § 7661(2) (title V statutory definition); 40 CFR §§ 70.2 and 71.2 (title V regulations); *id.* §§ 52.21(b)(5) and (6), 51.165(a)(1)(i) and (ii), and 51.166(b)(5) and (6) (NSR regulations). WDNR's permitting regulations generally mirror EPA's regulations in relevant part. *See* Wisc. N.R. 407.02(4) (title V regulations); *id.* 406.02(1m) (NSR regulations). Here, JCL and Ameresco meet the first two criteria (they are located on the same property and share the same 2-digit SIC code), so the inquiry discussed in this letter solely involves whether JCL and Ameresco's operations are under the control of the same person (or persons under common control).

[2] The EPA views articulated in this letter do not constitute a legislative rule or regulation subject to notice-and-comment rulemaking requirements nor final agency action. Additionally, this letter does not itself create any binding requirements on state and local permitting authorities, permit applicants, or the public, and the guidance it contains may not apply to a particular situation based upon the individual facts and circumstances.

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I. Background

JCL owns and operates a municipal solid waste landfill in Janesville, Wisconsin. Ameresco owns and operates an electrical generating station located on JCL's property. There are three basic elements of JCL's and Ameresco's operations: landfill operations, including landfill gas (LFG) collection; LFG treatment; and LFG combustion. As part of its landfill operations, JCL collects landfill gas (LFG) via a gas collection system. Although JCL owns and operates a flare capable of destroying its LFG, JCL typically does not do so, but rather delivers its collected LFG to Ameresco via pipeline. Ameresco operates LFG treatment equipment, which filters, de-waters, and compresses the gas. Ameresco then combusts the gas in three LFG-fired internal combustion engines used to generate electricity. Beyond the LFG treatment operations, WDNR asserts in its July 2018 letter to EPA that "JCL and Ameresco will continue to remain separate in all other respects," including with respect to JCL's collection of landfill gas and operation and maintenance of its flare, and with respect to Ameresco's operation and maintenance of its internal combustion engine generators. Currently, JCL and Ameresco each have their own title V permits. The LFG collection and treatment operations are currently covered by JCL's permit, and are not covered by Ameresco's permit or otherwise attributed to Ameresco for permitting purposes.

In its letter to EPA, WDNR evaluated the relationship between JCL and Ameresco in light of its understanding of EPA's April 30, 2018, Meadowbrook Letter.[3] The Meadowbrook Letter clarified EPA's interpretation of "control" (with regard to the regulatory definition of a single "stationary source" to include "all of the pollutant-emitting activities which . . . are under the control of the same person (or persons under common control)") and explained EPA's policy regarding how to best apply this interpretation in source determinations. In the Meadowbrook Letter, EPA explained that assessments of control should focus on "the power or authority of one entity to dictate decisions of the other that could affect the applicability of, or compliance with, relevant air pollution regulatory requirements." Meadowbrook Letter at 6. EPA explained that this inquiry asks, in relevant part, "whether the control exerted by one entity would determine whether the other entity complies or does not comply with an existing permitting requirement." *Id.* at 8.

The questions presented by WDNR involve the intersection between EPA's and WDNR's title V and NSR permitting programs and EPA's New Source Performance Standards (NSPS) applicable to landfills under section 111 of the Act.[4] Both the subpart WWW NSPS (to which JCL

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[3] Letter from William L. Wehrum, Assistant Administrator, Office of Air and Radiation, EPA, to the Honorable Patrick McDonnell, Secretary, Pennsylvania Department of Environmental Protection (April 30, 2018) ("Meadowbrook Letter").

[4] *See* 40 CFR §§ 60.750–.759 (subpart WWW NSPS, the new source landfill rule promulgated in 1996); *id.* §§ 60.760–.769 (subpart XXX NSPS, the new source landfill rule promulgated in 2016). Although this letter implicates the NSPS subpart WWW and XXX standards, similar issues could potentially arise related to other EPA standards applicable to certain landfills, including EPA's existing source emission guidelines promulgated under CAA § 111(d) (and state plans implementing these guidelines) as well as EPA's National Emission Standards for Hazardous Air Pollutants (NESHAP) applicable to landfills. *See id.* §§ 60.30c–.36c (subpart Cc emission guidelines, the existing source landfill rule promulgated in 1996); *id.* §§ 60.30f–.41f (subpart Cf emission guidelines, the existing source landfill rule promulgated in 2016); *id.* §§ 63.1930–.1990 (subpart AAAA NESHAP, promulgated in 2003).

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is currently subject) as well as the subpart XXX NSPS (to which JCL will become subject following an imminent landfill expansion project) require certain landfills to capture and collect their LFG. These standards then provide landfills multiple compliance options, including the option to destroy LFG in a flare, or to route collected landfill gas to a treatment system for sale or beneficial use.[5] The subpart XXX standards include monitoring and recordkeeping requirements for landfills that select the gas treatment compliance option, including obligations related to the filtration, de-watering, and compression of the landfill gas; these requirements are not contained in the subpart WWW standards.[6] Importantly, these requirements apply to the owner or operator of the municipal solid waste landfill.[7]

WDNR's analysis is largely based on the subpart XXX NSPS standards that will become applicable to JCL following the landfill expansion project that JCL is currently proposing. Based on JCL's responsibility to comply with the subpart XXX monitoring and recordkeeping requirements associated with gas treatment, and given Ameresco's operation of the gas treatment system, WDNR stated "that JCL will be dependent on Ameresco for compliance with the monitoring and recordkeeping obligations in Subpart XXX, or that Ameresco will have power to dictate decisions that affect JCL's compliance with relevant air pollution regulatory requirements." Thus, based on the principles outlined in EPA's Meadowbrook Letter, WDNR indicated it would conclude that "JCL will be under 'common control' with Ameresco and that the two entities should be considered a single stationary source." WDNR asked whether EPA agreed with these conclusions.

II. Discussion

The questions posed by WDNR's letter implicate two main issues: first, whether Ameresco "controls" LFG treatment if one interprets the regulatory definition of "stationary source," and in particular the concept of "control" over pollutant-emitting activities, in accord with the principles expressed in the Meadowbrook Letter; and second, if so, whether this "control" results in JCL and Ameresco being "under common control," such that the entirety of JCL's and Ameresco's operations must be treated as a single stationary source for title V and NSR permitting purposes.

As an initial matter, based on the information provided by WDNR, it seems reasonable for WDNR to conclude that Ameresco has "control" over the LFG treatment operations if the state applies the framework recommended in the Meadowbrook Letter. Ameresco has the authority to dictate actions related to the operation and monitoring of the LFG treatment equipment. As such, Ameresco has the power to dictate whether JCL complies with the subpart XXX requirements governing the monitoring and recordkeeping of treatment operations. Thus, it appears that

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[5] *See* 40 CFR §§ 60.752(b)(2)(iii), .761, .762(b)(2)(iii).

[6] *See* 40 CFR §§ 60.766(g), .767(c)(7), .768(b)(5)(ii).

[7] The provisions cited above refer to obligations of the "owner or operator" of the municipal solid waste landfill. *See* 40 CFR § 60.2 (definition of "owner or operator"); *id.* § 60.670(a) (designation of affected source as the municipal solid waste landfill); *id.* § 60.761 (definition of municipal solid waste landfill). EPA has previously stated that the owner or operator of a landfill is responsible for compliance with the NSPS, and that an owner cannot contract away its liability by arranging via contract for another entity (*i.e.*, an operator) to perform activities which are also regulated under the landfill NSPS. *See* Letter from Donald Toensing, Chief, Air Permitting and Compliance Branch, EPA Region 7, to James E. Brick, Brick, Gentry, Bowers, Swartz, Stoltze, Schuling & Levis, P.C. (January 5, 1999).

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Ameresco has "the power or authority . . . to dictate decisions that could affect . . . compliance with relevant air pollution regulatory requirements," which would amount to "control" over this aspect of operations under the Meadowbrook framework.[8] This conclusion is likely not unique to the Meadowbrook framework; given Ameresco's day-to-day operational responsibility over gas treatment, WDNR could have reasonably concluded that Ameresco controls this activity under other approaches to assessing control. However, it also seems reasonable for WDNR to conclude that JCL will have control over LFG treatment, given JCL's future compliance responsibility under NSPS subpart XXX.[9] Historically, it appears that WDNR has considered LFG treatment to be part of the JCL landfill source[10] due to the structure of the landfill NSPS. In any case, it appears that both JCL and Ameresco have overlapping degrees of operational and/or compliance responsibility with requirements governing LFG treatment, and arguably, both JCL and Ameresco could be said to have some level of control over LFG treatment.

Regarding WDNR's overarching question, the fact that Ameresco could reasonably be determined to "control" LFG treatment does *not* necessarily mean (1) that Ameresco controls other activities at the landfill (or the landfill as a whole), (2) that JCL and Ameresco are "under common control" in a broader sense, or (3) that the entirety of the two entities' operations must be considered a single stationary source. If, as WDNR asserts in its July 13, 2018, letter, "Ameresco will have no power or authority over how JCL collects the LFG or operates and maintains [JCL's] flare, and JCL will have no power or authority over how Ameresco operates and maintains [Ameresco's] internal combustion generators," then this presents a situation where the two entities each exercise some level of control over a single, limited aspect of otherwise separate operations.[11] As discussed further below, in such a situation, it would be reasonable to conclude that the JCL landfill and Ameresco energy facility are two separate sources for title V and NSR permitting purposes.

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[8] Meadowbrook Letter at 6. As WDNR notes, this outcome is different than that which EPA recommended in the Meadowbrook Letter with respect to Meadowbrook and Keystone Sanitary Landfill (KSL). In the Meadowbrook Letter, EPA considered whether Meadowbrook had the power to dictate whether KSL complied with the more general subpart WWW standards, and concluded that it did not. EPA qualified this conclusion by stating, "This conclusion is premised on Meadowbrook's representation that KSL's permit would not be modified in such a manner that Meadowbrook would have the power or authority to dictate whether KSL complies with its permit terms." Because the subpart WWW standards do not contain the subpart XXX requirements at issue here (*i.e.*, gas treatment monitoring and recordkeeping provisions), the Meadowbrook Letter did not directly address the question posed by WDNR.

[9] Given that the subpart XXX NSPS standards applicable to the owner/operator of the landfill (JCL) include requirements governing gas treatment, EPA expects that JCL *should* also retain some level of control over gas treatment if and when those standards become applicable to the source. In any case, as EPA has previously explained, JCL cannot contract away its role as owner of the landfill and related liability for compliance with the relevant NSPS standards (including requirements governing LFG treatment) for which EPA has, through rulemaking, specifically assigned it responsibility. *See supra* note 7. Similarly, JCL likely cannot contract away its legal control over aspects of operations for which it is responsible under the NSPS as the owner of the affected source. Thus, it seems reasonable to conclude that JCL retains at least some level of control over LFG treatment.

[10] *See* WDNR Operation Permit No. 54058190-P10, Term A.1.a.(4) (September 20, 2013) (term in JCL's current title V permit related to the operation of LFG treatment equipment, which cites 40 CFR § 60.752(b)(2)(iii)(C)).

[11] Determining the extent of activities controlled by multiple entities is inherently a context-specific analysis that permitting authorities should evaluate on a case-by-case basis.

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A. Distinguishing "Control" From "Persons Under Common Control"

In order to resolve these broader questions, it may be helpful to first clarify prior statements concerning "common control" in light of the relevant regulatory text. Under EPA's regulations governing source determinations, a "stationary source" is defined to encompass, in relevant part, "all of the pollutant-emitting activities which . . . are under the control of the same person (or persons under common control)."[12] EPA has often historically referred to the entirety of this inquiry as a determination of "common control." This informal, shorthand usage of the phrase "common control" may have created some confusion in light of how the terms "control" and "common control" (which are distinct in the regulatory text) are specifically used in the relevant regulations. The first part of the regulatory definition asks which activities are "under the control of the same person." The second part of the relevant regulatory text contemplates that multiple "persons under common control"—rather than a single person—might control an activity. Thus, the word "control" is used in two distinct ways: first, regarding whether a person "controls" a given *activity*, and second, regarding whether multiple persons are *themselves* "under common control."[13]

EPA's informal use of the phrase "common control" in prior EPA guidance[14] may have inadvertently blurred these distinct elements or suggested overbroad conclusions regarding when two entities should be considered "under common control." For example, one could have inferred that when multiple entities each exert a certain amount of "control" over a specific *activity* (first part of the regulatory text), then those *entities* themselves should also automatically be considered "persons under common control" (second part of the regulatory text). However, it would be inappropriate to automatically assume this, for the following reasons. First, as described above,

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[12] The term "stationary source" is defined as any "building, structure, facility, or installation which emits or may emit a regulated NSR pollutant." *E.g.*, 40 CFR § 52.21(b)(5). The definition of "Building, structure, facility, or installation" includes the specific language quoted in the text above. *E.g.*, *id.* § 52.21(b)(6). EPA's title V regulations, as well as WDNR's EPA-approved NSR and title V regulations, closely resemble this definition. *See id.* § 70.2 (defining "major source" for title V purposes); Wisc. NR 406.02(1m) (defining "facility" for NSR purposes); *id.* § 407.02(4) (defining "major source" for title V purposes). These regulations are consistent with, and help clarify, the more general text contained in relevant title V statutory provisions. *See* 42 U.S.C. § 7661(2) (including in the definition of "major source" the requirement that any group of stationary sources be "under common control"). The quoted phrases in the text above are used repeatedly throughout this letter; EPA will not repeat these citations.

[13] Put another way, the object of the word "control" differs between these two phrases in the regulatory text: the first focuses on control over a specific *activity*; the second focuses on control over an entire *person* or *entity* in a more general sense (*i.e.*, not limited to control over one particular activity that that person performs).

[14] For example, some parts of the Meadowbrook Letter specifically focused on "control" as used in the first part of the regulatory text. *See* Meadowbrook letter at 6–8, 11–12. In other instances, the term "common control" was used as a shorthand for the overall inquiry; this was not intended to specifically speak to the second part of the regulatory text. *See id.* at 3–6, 9–11. In discussing "control" in the Meadowbrook Letter, EPA also discussed a situation whereby one entity could "control" another *entity* by virtue of dictating *the other entity's actions* in a manner that has, for example, compliance consequences. However, the Meadowbrook Letter did *not* suggest that where one entity "controls" its *own* activities in a way that has compliance impacts on another entity (or where one entity "controls" an activity that another entity also "controls"), this necessarily means that the first entity "controls" the second entity itself, or that the two entities should be considered "persons under common control." Nor did the Meadowbrook Letter suggest that if one entity "controls" another entity's actions with respect to only a limited aspect of operations, both entities should necessarily be considered "persons under common control." Thus, the Meadowbrook Letter did not address the specific question presented here: how to treat otherwise distinct operations with a limited intersection of control.

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this assumption conflates two distinct aspects of the regulatory text, rendering this interpretation inconsistent with the regulatory text. Second, this distinction is important to preserve due to its practical implications. If multiple entities are not themselves "persons under common control," then only those activities that are "under the control of the same person" (*i.e.*, of *one* of the entities) would be considered part of the same source. However, if multiple entities were found to be "persons under common control," then *all* of the activities controlled by *any* of the entities would collectively be considered "under the control of . . . persons under common control," and, thus, would be part of the same source. Applying this assumption indiscriminately could therefore result in overbroad source determinations that aggregate wholly unrelated activities that may not accurately reflect "a common sense notion of a plant."[15]

For example, take two separately-owned manufacturing companies that operate independently with respect to all of their emissions-related activities, with the exception of a wastewater treatment plant over which they share control due to practical and economic convenience. In such a situation, it would stretch the plain meaning of "persons under common control," and the notion of a "common sense notion of a plant," to consider these two entities to be single source simply due to one piece of shared equipment. Such an overbroad reading could result in inequitable outcomes. The potential inequities associated with this situation mirror the concerns addressed in the Meadowbrook Letter: one entity could be unfairly held accountable for, or otherwise impacted by, the actions of another entity that were entirely beyond the first entity's control. *See* Meadowbrook Letter at 5, 7, 9.

Overall, the fact that one entity has some control over an *activity* that another entity also has some control over does not necessarily mean that the first entity also controls the second *entity*, such that the two entities are "under common control." Instead of assuming that shared control over a particular activity automatically equates to multiple entities being deemed "persons under common control," permitting authorities should independently make this latter determination. This will necessarily require a case-by-case evaluation based on the facts of a particular situation, subject to the permitting authority's exercise of reasonable discretion. In EPA's view, the phrase "persons under common control" suggests that the entities themselves are controlled from a central, unified position, such as through parent-subsidiary or other forms of corporate management relationships. Permitting authorities could also consider entities that are separate in the sense that they lack a formal organizational link of this type, but where one entity nevertheless exerts enough control over a substantial portion of the other's relevant operations, to be "persons under common control" in certain situations. However, where the overlap of control is limited to only a small portion of each entity's otherwise separate operations, EPA does not believe such entities should themselves be considered "persons under common control" simply by virtue of this limited nexus.

B. Evaluating Activities Under the Potential Control of Multiple Entities (That Are Not Under Common Control)

Where multiple entities are not themselves "persons under common control," EPA's and WDNR's regulations indicate that only those activities that are "under the control of the same

[15] 45 FR 52676, 52694–95 (August 7, 1980) (citing *Alabama Power Co. v. Costle*, 636 F.2d 323 (D.C. Cir. 1979)); *see also* 61 FR 34202, 34210 (July 1, 1996).

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person" should be considered part of the same source. Thus, activities solely controlled by one entity should not be considered part of the same source as activities solely controlled by another entity. However, EPA's regulations do not specifically address how to allocate activities that are arguably controlled, at least to some extent, by multiple otherwise separate entities. EPA believes it will be useful for WDNR and others to provide the following guidance.

There are two potential, alternative approaches to this situation: First, permitting authorities could determine that only one entity "controls" the shared activity. As a result, the shared activity would be treated as part of only that one entity's source, along with other activities controlled by that entity that are located on contiguous or adjacent properties and share the same major industrial grouping. Second, permitting authorities could determine that multiple entities "control" the shared activity. This approach would, somewhat absurdly, result in the shared activity being considered part of multiple separate sources (provided it was located on contiguous or adjacent properties and shared the same major industrial grouping with the other activities).[16] For the reasons discussed below, EPA considers the first approach to be the more appropriate one for permitting authorities to follow when making source determinations.

As an initial matter, neither the CAA nor EPA's regulations define "control" or specify how permitting authorities should determine which entity controls which activities.[17] Therefore, nothing in the Act or EPA's regulations precludes permitting authorities from determining that a single entity "controls" an activity in the regulatory sense, even where that activity may be subject to some level of control by other entities as well. Instead, the text of EPA's regulations supports the notion that, in the absence of "persons under common control," a *single person* should be determined to control each activity, rather than multiple not-commonly-controlled persons. *E.g.*, 40 CFR § 52.21(b)(6) ("under the control of the *same person* (or persons under common control)" (emphasis added)).

Moreover, the context of the Act and EPA's regulations support this approach. Under both the NSR program and the title V program (to a lesser extent), determining which air pollution-related requirements apply to a given activity is fundamentally based on how that activity is positioned relative to other activities within a single "stationary source" or "major source." This inherently requires the establishment of discrete, well-defined boundaries between sources. Although this can be a challenging task (as the facts here illustrate), EPA considers it a necessary

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[16] A simplified hypothetical may help clarify these options. There are two entities (Entities 1 and 2) and three pollution-emitting activities (activities A, B, and C). Only Entity 1 controls activity A. Both Entity 1 and 2 have some level of control over activity B. Only Entity 2 controls activity C. As discussed above, assuming Entities 1 and 2 are not themselves "persons under common control," it may not be appropriate to treat activities A, B, and C as a single source because activities A and C are not "under the control of the same person (or persons under common control)." The first approach would allocate control over activity B to only one of the entities (Entity 1) resulting in one source comprised of activities A and B, and a separate source comprised of activity C. The second approach would assign control over activity B to both entities, resulting in one source comprised of activities A and B, and another source comprised of activities B and C.

[17] The following discussion concerns the discretion available to permitting authorities to determine who controls an activity in the first instance. The same level of discretion is not available to determine which activities constitute a single source after such a determination of control has been made. Once control over a particular activity has been established, the relevant regulations dictate that all activities that are, *inter alia*, under the control of the same person (or persons under common control) must be considered part of the same major source or stationary source.

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one. The alternative—allowing a single activity to be considered part of multiple stationary sources—would lead to unworkable results inconsistent with basic elements of the NSR and title V programs and would not "carry out reasonably the purposes" of these programs.[18]

For example, in the context of determining the applicability of major source requirements under NSR or title V, if a shared activity were considered part of two separate stationary sources, both sources could be burdened by emissions increases associated with the shared activity or could take advantage of emission reductions from the shared activity. This type of double-counting emissions increases or decreases could thus artificially result in two sources (instead of one) either triggering or avoiding major NSR or title V requirements. As another example, for new sources or modifications subject to major NSR requirements, this double-counting of emissions increases or decreases could also seriously complicate and/or undermine source-specific PSD and nonattainment NSR ambient air quality modeling, as well as emissions inventories and attainment demonstrations in nonattainment areas. As a third example, if a shared activity were treated as part of two separate sources, the shared activity could potentially be subject to different or even conflicting requirements (*e.g.*, the requirement to install best available control technology at one source, but not the other), with each controlling entity motivated to comply with only one set of requirements applicable to the activity.

In order to avoid these unworkable outcomes, permitting authorities should ensure that each activity is ultimately allocated to a single source. Determining that only a single entity (or entities under common control) "controls" each activity would be a reasonable way to accomplish this. This approach is also consistent with how EPA has addressed similar issues concerning the major industrial grouping (SIC) code prong of the source determination framework, where EPA has historically recommended that permitting authorities assign a single SIC code to activities that support multiple different primary activities.[19]

Overall, permitting authorities may exercise reasonable discretion in determining which entity controls each relevant pollutant-emitting activity. As with determining whether multiple entities are "persons under common control," determining whether an entity "controls" a given activity will necessarily involve a case-by-case determination based on the specific facts of each situation. In making these decisions, permitting authorities should ensure that their source determinations ultimately reflect a "common sense notion of a plant" and that sources do not take advantage of this flexibility to circumvent major source requirements. The framework articulated in EPA's Meadowbrook Letter reflects EPA's suggested basis for making determinations of

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[18] 45 FR at 52694–95.

[19] Under longstanding EPA guidance regarding the major industrial grouping prong of the source determination framework, support facilities should be assigned the SIC code of the primary activity they support. 45 FR at 52695. Where an activity supports multiple different primary activities with different SIC codes, such a support facility could arguably be assigned multiple different SIC codes. This is analogous to the situation at hand, where an activity controlled to some extent by multiple entities could arguably be said to be "under the control of" multiple different entities. In the SIC code context, EPA has advised that the shared support activity should be assigned a single SIC code, and as a result, should be treated as part of a single source. *See id.* ("Where a single unit is used to support two otherwise distinct sets of activities, the unit is to be included within the source which relies most heavily on its support."); *see also* EPA, New Source Review Workshop Manual, DRAFT at A.4 (October 1990). In both the industrial grouping (SIC code) context and the control context, assigning a single SIC code or a single controlling entity to each activity avoids the unworkable situation where an activity could be considered part of two separate stationary sources.

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"control" in most instances. However, in instances where multiple entities with otherwise separate operations exert some level of control over an activity, it may be appropriate to consider additional information in order to determine which entity should be deemed to "control" that activity, such that the activity is attributed to the entity for permitting purposes. For example, where a federally-promulgated standard dictates that a specific entity is responsible for a specific activity, this may provide a reasonable basis for determining that this specific entity controls that activity. In this way, EPA's recommended approach provides the flexibility to harmonize CAA permitting programs with other CAA programs, such as the landfill NSPS standards implicated by this fact pattern.

III. Suggestions for WDNR Regarding JCL and Ameresco

Applying these principles to WDNR's questions regarding JCL and Ameresco's operations, WDNR could reasonably continue treating JCL and Ameresco as two separate sources if landfill operations, LFG collection, LFG flaring, and LFG combustion are not collectively "under the control of the same person (or persons under common control)." That is, provided the only area of overlap between these entities involves LFG treatment, WDNR may be able to conclude that JCL and Ameresco are not "persons under common control" solely due to the fact that LFG treatment is potentially under the control of both entities. Then, based on the reasoning explained in Section II.B above, WDNR may also be able to conclude that LFG treatment activities are only under JCL's "control"—not Ameresco's—for permitting purposes. As a result, WDNR could conclude that LFG treatment activities remain part of the stationary source associated with the landfill, separate from Ameresco's engines.

This allocation of LFG treatment activities solely to JCL for source determination purposes would be consistent with the structure of the subpart XXX NSPS. As discussed above, where LFG treatment is selected as a landfill's compliance option, the subpart XXX regulations impose requirements on the owner/operator of the landfill up through the point of LFG treatment,[20] but these standards do not extend to the ultimate use of the LFG (*e.g.*, electrical generating engines, which are covered by separate standards). Therefore, in the case of landfills with collocated LFG-to-energy operations, the structure of the subpart XXX NSPS and other relevant federal standards, and the identity of the parties responsible for compliance with those standards, may provide a reasonable framework for permitting authorities to determine which activities should be attributed to which stationary sources.

EPA's analysis and recommendations above are based on WDNR's representations that the operation of the landfill is under the sole control of JCL, and that LFG combustion is under the sole control of Ameresco. As WDNR makes its source determination for JCL and Ameresco, EPA recommends that WDNR fully consider all relevant facts regarding control over each activity under the Meadowbrook framework—including aspects of JCL's and Ameresco's relationship

[20] In fact, when EPA finalized the subpart XXX standards, it expressly indicated that obligations related to LFG treatment (specifically, the treatment system monitoring plan) would be included in the *landfill's* title V permit. 81 FR 59332, 59343, 59360 (August 29, 2016). JCL is undisputedly the owner/operator of the municipal solid waste landfill to which all obligations within the subpart XXX standards apply. *See supra* note 7. Nothing in this letter, nor in any permit decision taken by WDNR, should be taken to affect Ameresco's potential liability under the NSPS as a potential "operator" of the LFG treatment equipment or any other aspects of the landfill, as applicable.

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relevant to LFG collection and combustion—before determining whether the approach recommended above is relevant to the facts at hand in this case. Given that WDNR is the title V and NSR permitting authority for JCL and Ameresco, WDNR has the ultimate responsibility to make this determination based on the specific facts before it.

If you have any additional questions, please contact Scott Mathias of my office at (919) 541-5310 or *mathias.scott@epa.gov*.

Sincerely,

Anna Marie Wood
Director, Air Quality Policy Division

cc: Kristin Hart, WDNR
Ed Nam, Region 5 Air Division Director

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Message

Sent: 4/29/2019 8:11:37 PM
To: Bryce Bird [bbird@utah.gov]; mgray@utah.gov
Subject: MSW Landfill Plan

Hi Bryce and Marty – Per our midyear call this afternoon, I'm following up with an email regarding a potential Utah Municipal Solid Waste (MSW) Landfill Plan.

The EPA published a proposed rule on October 30, 2018 (83 FR 54527), setting a new deadline for state municipal solid waste landfill plan submittals. If this rule is finalized, the new submittal deadline for state plans under the Emission Guidelines of 40 CFR part 60, subpart Cf will be August 29, 2019.

Is Utah anticipating developing and submitting a 111(d) state plan for existing municipal solid waste landfills? Or, will Utah be submitting a negative declaration because there are no designated facilities within the state's jurisdiction?

Monica Morales
Acting Deputy Director
Air and Radiation Division (8ARD)
U.S. EPA Region 8
1595 Wynkoop Street
Denver, Colorado 80202-1129
Phone: (303) 312-6936
morales.monica@epa.gov

Message

From: Morales, Monica [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=95056129AAFF4A3FB76A21AE0BD7C655-MORALES, MONICA]
Sent: 5/14/2019 5:48:02 PM
To: Daly, Carl [Daly.Carl@epa.gov]; Patefield, Scott [Patefield.Scott@epa.gov]
Subject: FW: Draft Colorado/Region 8 Midyear Agenda - Review by COB, May 13th
Attachments: Agenda for Colorado 2019 Midyear.docx; CO 19 MidYear Brief.docx

<!--[if lte mso 15 || CheckWebRef]-->

Morales, Monica has shared a OneDrive for Business file with you. To view it, click the link below.

CO 19 MidYear Brief.docx

<!--[endif]-->

I'm also attaching our internal briefing paper for you all. Both as a SP link and as an attachment.

Monica Morales
Acting Deputy Director
Air and Radiation Division (8ARD)
U.S. EPA Region 8
1595 Wynkoop Street
Denver, Colorado 80202-1129
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morales.monica@epa.gov

From: Morales, Monica
Sent: Tuesday, May 14, 2019 8:15 AM
To: Kaufman - CDPHE, Garrison <garrison.kaufman@state.co.us>
Cc: Daly, Carl <Daly.Carl@epa.gov>; Fallon, Gail <fallon.gail@epa.gov>; Jackson, Scott <jackson.scott@epa.gov>; Fiedler, Kerri <Fiedler.Kerri@epa.gov>; McPhilliamy, Marisa <McPhilliamy.Marisa@epa.gov>; Fulton, Abby <Fulton.Abby@epa.gov>; Pierce - CDPHE, Gordon <gordon.pierce@state.co.us>; Dena Wojtach - CDPHE <dena.wojtach@state.co.us>; mark.mcmillan@state.co.us; lena.peschanskaia@state.co.us; Patefield, Scott <Patefield.Scott@epa.gov>; Law, Donald <Law.Donald@epa.gov>
Subject: RE: Draft Colorado/Region 8 Midyear Agenda - Review by COB, May 13th

Hi Garry – Attached is the final agenda for our midyear meeting on Wednesday. See you all then.

Monica Morales
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From: Kaufman - CDPHE, Garrison <garrison.kaufman@state.co.us>
Sent: Tuesday, May 14, 2019 7:27 AM
To: Morales, Monica <Morales.Monica@epa.gov>
Subject: Re: Draft Colorado/Region 8 Midyear Agenda - Review by COB, May 13th

This agenda looks good to us Monica.

On Wed, May 8, 2019 at 2:11 PM Morales, Monica <Morales.Monica@epa.gov> wrote:

> Hi Garry – Attached for you and your staffs' review, is a draft midyear agenda for our meeting on May 15th. Please let me know if you have any edits by COB, Monday, May 13th. Thanks.
>
> Monica Morales
>
> Acting Deputy Director
>
> Air and Radiation Division (8ARD)
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> U.S. EPA Region 8
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> 1595 Wynkoop Street
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> Denver, Colorado 80202-1129
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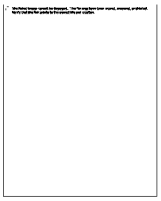
Garry Kaufman
Division Director
Air Pollution Control Division
Colorado Department of Public Health and Environment
garrison.kaufman@state.co.us
(303) 692-3114



Are you curious about ground-level ozone in Colorado? Visit our ozone webpage to learn more.

Colorado FY2019 Midyear Agenda
Date: May 15, 2019
Time: 1 - 3 pm
Location: EPA Region 8, Prairie Rose Room (7th Floor)
(EPA will escort CDPHE to the 7th Floor)

I. BUDGET
- DERA
- 103/105 Funding
- NATTS Funding
- Multipurpose Grant (MPG) Program Update
- Radon Funding

II. CLEAN AIR ACT SECTION 111(d)
- Municipal Solid Waste (MSW) Landfill Plan
- Hospital Medical Infectious Waste Incinerator (HMIWI) Plan
- Commercial and Industrial Solid Waste Incineration Units (CISWI)
  - 2019 Technical Amendments
- CDPHE Contact for 111(d)/129 Issues

III. MONITORING
- 5-Year Network Assessment Due Next Year
- Lead Monitoring Issue for Annual Monitoring Network Plan
- Requests from Ramboll for Monitoring Documents
- Photochemical Assessment Monitoring Station (PAMS) Enhanced Monitoring Planning

IV. STATE IMPLEMENTATION PLAN (SIP) UPDATE
- FY2019 SIP Management Plan – Progress Check-in
- Regional Haze SIP
  - Second Round SIP

V. DENVER OZONE
- Discuss 2008 Ozone Updates/Next Steps

VI. PERMITTING
- Electronic Permit System (EPS)
- Suncor Title V Update from CDPHE
- Title V Program Review
- Reg 3 Post-Construction Permit Issuance from CDPHE
- Reg 7/Gen 5 Voluntary Permits
- Southern Ute Indian Tribe Capacity Building
- Oil and Gas Combustor Efficiency

Message

From: Morales, Monica [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=95056129AAFF4A3FB76A21AE0BD7C655-MORALES, MONICA]
Sent: 4/29/2019 8:20:03 PM
To: martygray@utah.gov
CC: Bryce Bird [bbird@utah.gov]
Subject: FW: MSW Landfill Plan

Sorry Marty, I used the wrong email.

Monica Morales
Acting Deputy Director
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1595 Wynkoop Street
Denver, Colorado 80202-1129
Phone: (303) 312-6936
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From: Morales, Monica
Sent: Monday, April 29, 2019 2:19 PM
To: Bryce Bird <bbird@utah.gov>; mgray@utah.gov
Subject: MSW Landfill Plan

Hi Bryce and Marty – Per our midyear call this afternoon, I'm following up with an email regarding a potential Utah Municipal Solid Waste (MSW) Landfill Plan.

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